

UNISAW®

10" Left Tilting Arbor Saw

(Models 36-L31, 36-L51, 36-L53,
36-L31X, 36-L51X)



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To learn more about DELTA MACHINERY
visit our website at: www.deltamachinery.com.

For Parts, Service, Warranty or other Assistance,

please call 1-800-223-7278 (In Canada call 1-800-463-3582).

SAFETY GUIDELINES - DEFINITIONS

This manual contains information that is important for you to know and understand. This information relates to protecting YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the symbols to the right. Please read the manual and pay attention to these sections.

⚠ DANGER Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION Used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

⚠ WARNING **SOME DUST CREATED BY POWER SANDING, SAWING, GRINDING, DRILLING, AND OTHER CONSTRUCTION ACTIVITIES** contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, always wear **MSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools.

GENERAL SAFETY RULES



⚠ WARNING **READ AND UNDERSTAND ALL WARNINGS AND OPERATING INSTRUCTIONS BEFORE USING THIS EQUIPMENT.** Failure to follow all instructions listed below, may result in electric shock, fire, and/or serious personal injury or property damage.

IMPORTANT SAFETY INSTRUCTIONS

Woodworking can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, featherboards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. Always use common sense and exercise caution in the workshop. If a procedure feels dangerous, don't try it. Figure out an alternative procedure that feels safer. **REMEMBER:** Your personal safety is your responsibility. For additional information please visit our website www.deltamachinery.com.

⚠ WARNING This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, **DO NOT** use the machine until you have first contacted Delta to determine if it can or should be performed on the product.

Technical Service Manager
Delta Machinery
4825 Highway 45 North
Jackson, TN 38305
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▲ WARNING**FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY.**

1. **FOR YOUR OWN SAFETY, READ THE INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE.** Learning the machine's application, limitations, and specific hazards will greatly minimize the possibility of accidents and injury.
2. **USE CERTIFIED SAFETY EQUIPMENT.** Eye protection equipment should comply with ANSI Z87.1 standards, hearing equipment should comply with ANSI S3.19 standards, and dust mask protection should comply with MSHA/NIOSH certified respirator standards. Splinters, air-borne debris, and dust can cause irritation, injury, and/or illness.
3. **DRESS PROPERLY.** Do not wear tie, gloves, or loose clothing. Remove watch, rings, and other jewelry. Roll up your sleeves. Clothing or jewelry caught in moving parts can cause injury.
4. **DO NOT USE THE MACHINE IN A DANGEROUS ENVIRONMENT.** The use of power tools in damp or wet locations or in rain can cause shock or electrocution. Keep your work area well-lit to prevent tripping or placing arms, hands, and fingers in danger.
5. **MAINTAIN ALL TOOLS AND MACHINES IN PEAK CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Poorly maintained tools and machines can further damage the tool or machine and/or cause injury.
6. **CHECK FOR DAMAGED PARTS.** Before using the machine, check for any damaged parts. Check for alignment of moving parts, binding of moving parts, breakage of parts, and any other conditions that may affect its operation. A guard or any other part that is damaged **should be properly repaired or replaced.** Damaged parts can cause further damage to the machine and/or injury.
7. **KEEP THE WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
8. **KEEP CHILDREN AND VISITORS AWAY.** Your shop is a potentially dangerous environment. Children and visitors can be injured.
9. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure that the switch is in the "OFF" position before plugging in the power cord. In the event of a power failure, move the switch to the "OFF" position. An accidental start-up can cause injury.
10. **USE THE GUARDS.** Check to see that all guards are in place, secured, and working correctly to prevent injury.
11. **REMOVE ADJUSTING KEYS AND WRENCHES BEFORE STARTING THE MACHINE.** Tools, scrap pieces, and other debris can be thrown at high speed, causing injury.
12. **USE THE RIGHT MACHINE.** Don't force a machine or an attachment to do a job for which it was not designed. Damage to the machine and/or injury may result.
13. **USE RECOMMENDED ACCESSORIES.** The use of accessories and attachments not recommended by Delta may cause damage to the machine or injury to the user.
14. **USE THE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. See the Extension Cord Chart for the correct size depending on the cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
15. **SECURE THE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. Loss of control of a workpiece can cause injury.
16. **FEED THE WORKPIECE AGAINST THE DIRECTION OF THE ROTATION OF THE BLADE, CUTTER, OR ABRASIVE SURFACE.** Feeding it from the other direction will cause the workpiece to be thrown out at a high speed.
17. **DON'T FORCE THE WORKPIECE ON THE MACHINE.** Damage to the machine and/or injury may result.
18. **DON'T OVERREACH.** Loss of balance can make you fall into a working machine, causing injury.
19. **NEVER STAND ON THE MACHINE.** Injury could occur if the tool tips, or if you accidentally contact the cutting tool.
20. **NEVER LEAVE THE MACHINE RUNNING UNATTENDED. TURN THE POWER OFF.** Don't leave the machine until it comes to a complete stop. A child or visitor could be injured.
21. **TURN THE MACHINE "OFF", AND DISCONNECT THE MACHINE FROM THE POWER SOURCE** before installing or removing accessories, before adjusting or changing set-ups, or when making repairs. An accidental start-up can cause injury.
22. **MAKE YOUR WORKSHOP CHILDPROOF WITH PADLOCKS, MASTER SWITCHES, OR BY REMOVING STARTER KEYS.** The accidental start-up of a machine by a child or visitor could cause injury.
23. **STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE. DO NOT USE THE MACHINE WHEN YOU ARE TIRED OR UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR MEDICATION.** A moment of inattention while operating power tools may result in injury.
24. **THE DUST GENERATED** by certain woods and wood products can be injurious to your health. Always operate machinery in well-ventilated areas, and provide for proper dust removal. Use wood dust collection systems whenever possible.

ADDITIONAL SAFETY RULES FOR CIRCULAR SAWS

⚠ WARNING FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY.

1. **DO NOT OPERATE THIS MACHINE** until it is **assembled** and **installed** according to the instructions.
2. **OBTAIN ADVICE FROM YOUR SUPERVISOR, instructor, or another qualified person** if you are not familiar with the operation of this machine.
3. **FOLLOW ALL WIRING CODES** and recommended electrical connections.
4. **USE THE GUARDS WHENEVER POSSIBLE.** Check to see that they are in place, secured, and working correctly.
5. **AVOID KICKBACK by:**
 - A. keeping blade sharp and free of rust and pitch.
 - B. keeping rip fence parallel to the saw blade.
 - C. using saw blade guard and spreader for every possible operation, including all through sawing.
 - D. pushing the workpiece past the saw blade prior to release.
 - E. never ripping a workpiece that is twisted or warped, or does not have a straight edge to guide along the fence.
 - F. using feather boards when the anti-kickback device cannot be used.
 - G. never sawing a large workpiece that cannot be controlled.
 - H. never using the fence as a guide when crosscutting.
 - I. never sawing a workpiece with loose knots or other flaws.
6. **ALWAYS USE GUARDS, SPLITTER, AND ANTI-KICKBACK FINGERS** except when otherwise directed in the manual.
7. **REMOVE CUT-OFF PIECES AND SCRAPS** from the table before starting the saw. The vibration of the machine may cause them to move into the saw blade and be thrown out. After cutting, turn the machine off. When the blade has **come to a complete stop, remove all debris.**
8. **NEVER START THE MACHINE** with the workpiece against the blade.
9. **HOLD THE WORKPIECE FIRMLY** against the miter gauge or fence.
10. **NEVER** run the workpiece between the fence and a moulding cutterhead.
11. **NEVER** perform “free-hand” operations. Use either the fence or miter gauge to position and guide the workpiece.
12. **USE PUSH STICK(S)** for ripping a narrow workpiece.
13. **AVOID AWKWARD OPERATIONS AND HAND POSITIONS** where a sudden slip could cause a hand to move into the blade.
14. **KEEP ARMS, HANDS, AND FINGERS** away from the blade.
15. **NEVER** have any part of your body in line with the path of the saw blade.
16. **NEVER REACH AROUND** or over the saw blade.
17. **NEVER** attempt to free a stalled saw blade without first turning the machine “OFF”.
18. **PROPERLY SUPPORT LONG OR WIDE** workpieces.
19. **NEVER PERFORM LAYOUT,** assembly or set-up work on the table/work area when the machine is running.
20. **TURN THE MACHINE “OFF” AND DISCONNECT THE MACHINE** from the power source before installing or removing accessories, before adjusting or changing set-ups, or when making repairs.
21. **TURN THE MACHINE “OFF”,** disconnect the machine from the power source, and clean the table/work area before leaving the machine. **LOCK THE SWITCH IN THE “OFF” POSITION** to prevent unauthorized use.
22. **ADDITIONAL INFORMATION** regarding the safe and proper operation of this machine, including a safety video, is available from the Power Tool Institute, 1300 Sumner Avenue, Cleveland, OH 44115-2851 (www.powertoolinstitute.com). Information is also available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201. Please refer to the American National Standards Institute ANSI 01.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor OSHA 1910.213 Regulations.

SAVE THESE INSTRUCTIONS.
Refer to them often and use them to instruct others.

POWER CONNECTIONS

A separate electrical circuit should be used for your machines. This circuit should not be less than #12 wire and should be protected with a 20 Amp time lag fuse. If an extension cord is used, use only 3-wire extension cords which have 3-prong grounding type plugs and matching receptacle which will accept the machine's plug. Before connecting the machine to the power line, make sure the switch is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine. All line connections should make good contact. Running on low voltage will damage the machine.

⚠ DANGER DO NOT EXPOSE THE MACHINE TO RAIN OR OPERATE THE MACHINE IN DAMP LOCATIONS.

MOTOR SPECIFICATIONS

Your machine is wired for 230 volt, 60 HZ alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position.

GROUNDING INSTRUCTIONS

⚠ DANGER THIS MACHINE MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.

1. All grounded, cord-connected machines:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as shown in Fig. C.

Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected machines intended for use on a supply circuit having a nominal rating between 150 - 250 volts, inclusive:

If the machine is intended for use on a circuit that has an outlet that looks like the one illustrated in Fig. C, the machine will have a grounding plug that looks like the plug illustrated in Fig. C. Make sure the machine is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this machine. If the machine must be re-connected for use on a different type of electric circuit, the re-connection should be made by qualified service personnel; and after re-connection, the machine should comply with all local codes and ordinances.

⚠ DANGER IN ALL CASES, MAKE CERTAIN THE RECEPTACLE IN QUESTION IS PROPERLY GROUNDED. IF YOU ARE NOT SURE HAVE A QUALIFIED ELECTRICIAN CHECK THE RECEPTACLE.

3. Permanently connected machines:

If the machine is intended to be permanently connected, the machine should be connected to a grounded metal permanent wiring system, or to a system having an equipment-grounding conductor.

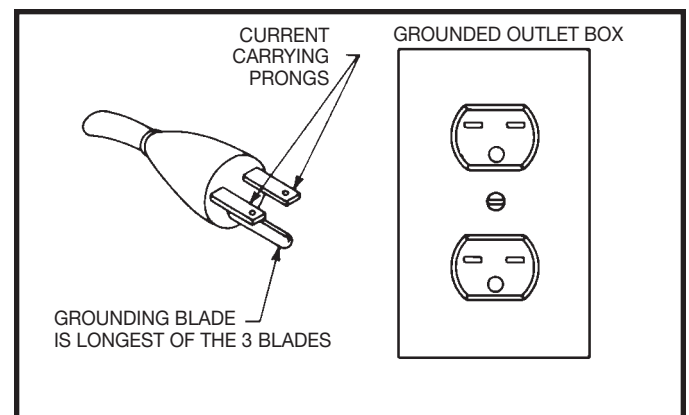


Fig. C

FIVE HORSEPOWER MOTORS

The motors supplied with single phase, 5 horsepower Unisaws are designed to be operated from a 220-240 volt power system.

The 5 horsepower Unisaws are not supplied with a power cord. They must be permanently connected to the building electrical system and grounded according to the National Electrical Code. Since they are permanently connected to the building electrical system, extension cords cannot be used with the 5 horsepower Unisaw.

THREE PHASE OPERATION

Three phase Unisaws are not supplied with a power cord. They must be permanently connected to the building electrical system and grounded according to the National Electrical Code. Since they must be permanently connected to the building electrical system, extension cords cannot be used with three phase Unisaws.

MAGNETIC PUSH BUTTON CONTROLS

If you purchased the Unisaw with a magnetic starter, transformer and overload protection (LVC), refer to the separate electrical instruction manual supplied with the machine. These Unisaws are not supplied with a power cord. They must be permanently connected to the building electrical system and grounded according to the National Electrical Code. These connections should be made by a qualified electrician. Since they must be permanently connected to the building electrical system, extension cords cannot be used with these Unisaws.

EXTENSION CORDS

CAUTION Use proper extension cords. Make sure your extension cord is in good condition and is a 3-wire extension cord which has a 3-prong grounding type plug and matching receptacle which will accept the machine's plug. When using an extension cord, be sure to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. Fig. D, shows the correct gauge to use depending on the cord length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

MINIMUM GAUGE EXTENSION CORD			
RECOMMENDED SIZES FOR USE WITH STATIONARY ELECTRIC MACHINES			
Ampere Rating	Volts	Total Length of Cord in Feet	Gauge of Extension Cord
0-6	240	up to 50	18 AWG
0-6	240	50-100	16 AWG
0-6	240	100-200	16 AWG
0-6	240	200-300	14 AWG
6-10	240	up to 50	18 AWG
6-10	240	50-100	16 AWG
6-10	240	100-200	14 AWG
6-10	240	200-300	12 AWG
10-12	240	up to 50	16 AWG
10-12	240	50-100	16 AWG
10-12	240	100-200	14 AWG
10-12	240	200-300	12 AWG
12-16	240	up to 50	14 AWG
12-16	240	50-100	12 AWG
12-16	240	GREATER THAN 100 FEET NOT RECOMMENDED	

Fig. D

FUNCTIONAL DESCRIPTION

FOREWORD

The Delta Unisaw is a 10" left tilting arbor saw. The Delta Unisaw features set the standards in the table saw industry.

⚠ WARNING A RIP FENCE ASSEMBLY IS NOT PACKAGED WITH THE PRODUCT. YOU MUST INSTALL AND USE A RIP FENCE SYSTEM FOR RIPPING OPERATIONS.

NOTICE: THE MANUAL COVER PHOTO ILLUSTRATES THE CURRENT PRODUCTION MODEL 36-L31. ALL OTHER ILLUSTRATIONS ARE REPRESENTATIVE ONLY AND MAY NOT DEPICT THE ACTUAL COLOR, LABELING OR ACCESSORIES AND MAY BE INTENDED TO ILLUSTRATE TECHNIQUE ONLY.

UNPACKING AND CLEANING

Carefully unpack the machine and all loose items from the shipping container(s). Remove the protective coating from all unpainted surfaces. This coating may be removed with a soft cloth moistened with kerosene (do not use acetone, gasoline or lacquer thinner for this purpose). After cleaning, cover the unpainted surfaces with a good quality household floor paste wax.

CAUTION REMOVE THE STYROFOAM PACKING AND ANY OTHER LOOSE ITEMS FROM THE INSIDE OF THE SAW CABINET. THE MOTOR COVER MUST BE REMOVED IN ORDER TO REMOVE ITEMS FROM INSIDE THE SAW CABINET. TO REMOVE THE MOTOR COVER, REMOVE THE 1/4-20x5/8" HEX HEAD SCREW FROM LOCATION (B) FIG. 1, AND PUSH MOTOR COVER TO ONE SIDE TO DEPRESS CLIPS, AND PULL MOTOR COVER OFF. SEE SECTION "MOTOR COVER".

IMPORTANT: The saw is shipped with the saw arbor in the 45 degree position. **NOTE: THE HAND WHEEL MUST BE ASSEMBLED TO THE SAW, SEE THE SECTION "BLADE TILTING HANDWHEEL", THEN PROCEED WITH THE FOLLOWING.** Loosen locking knob on the handwheel, and turn handwheel until the saw arbor is in the 90 degree position and remove the styrofoam packing from inside the saw cabinet. Tighten locking knob.

UNISAW PARTS



Fig. 1

Fig. 1

1. Unisaw
2. Switch (shown with a GPE switch)

Fig. 2

3. Extension wing (2)
4. Handwheel
5. Blade guard and splitter assembly
6. Upper bracket for splitter
7. Lower bracket for support rod
8. Support rod
9. 7/8" Open end arbor wrench
10. 7/8"x1/2" Closed end arbor wrench
11. Dust chute
12. Miter gage
13. Cap for miter gage handle
14. Handle for miter gage
15. Handwheel lock knob
16. 1/8" Hex wrench

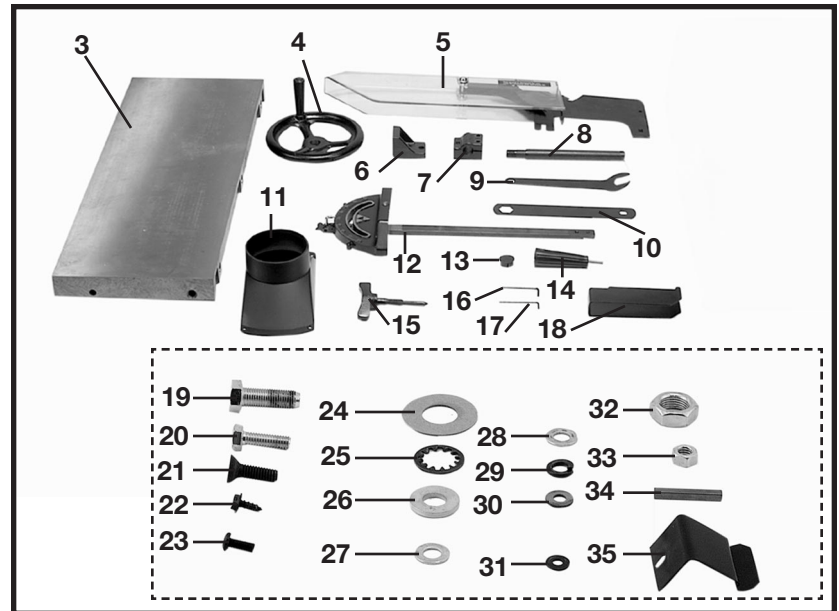


Fig. 2

17. 5/64" Hex wrench
18. Hanger for rip fence (2)
19. 7/16-20x1 1/4" Hex head screw (6)
20. 5/16-18x1" Hex head screw (4)
21. 5/16-18x1" Flat Head Screw (1)
22. #10x1/2" Hex washer head screw (8)
23. 10-32x1/2" Pan head screw (2) (for use w/ LVC models only)
24. 3/4" I.D. Fiber washer (1)
25. 5/8" I.D. Internal tooth washer (1)
26. 7/16" I.D. Flat washer (6)
27. 5/16" I.D. Flat washer (2)
28. 5/16" I.D. Flat washer (1) (for use w/ GPE models only)
29. 5/16" I.D. Lockwasher (3)
30. 1/4" I.D. Fiber washer (1)
31. 13/64" I.D. Flat washer (2) (for use w/ LVC models only)
32. 5/8-18 Jam nut (1)
33. 5/16-18 Hex nut (1) (for use w/ GPE models only)
34. 1-3/8" Key (1)
35. Spring clip (2) (for use w/ LVC models only)

ASSEMBLY

⚠ WARNING FOR YOUR OWN SAFETY, DO NOT CONNECT THE MACHINE TO THE POWER SOURCE UNTIL THE MACHINE IS COMPLETELY ASSEMBLED AND YOU READ AND UNDERSTAND THE ENTIRE INSTRUCTION MANUAL.

BLADE TILTING HANDWHEEL

1. Install fiber washer (A) Fig. 3, on the blade tilting handwheel shaft (B). Install key (C), into shaft keyway.
2. Place handwheel (D) on shaft (B) Fig. 3. Make sure the groove (E), in the handwheel lines up with the key (C).
3. Push the handwheel snugly against the fiber washer and tighten the set screw.
4. Install lock knob (F) Fig. 4, into threaded end of the shaft (B). Hand-tighten lock knob at this time.

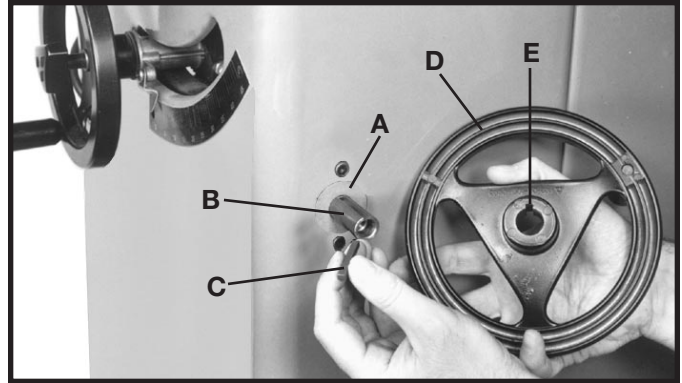


Fig. 3

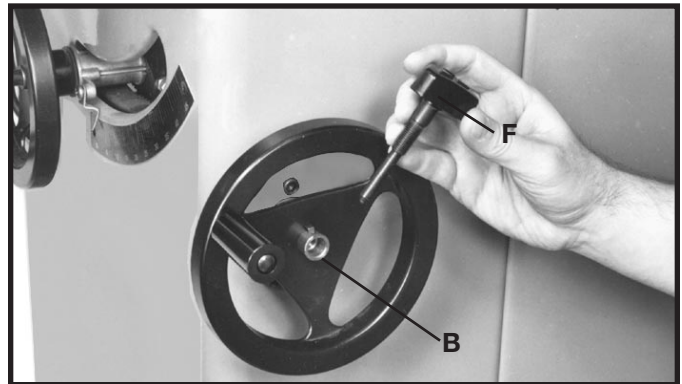


Fig. 4

EXTENSION WINGS

NOTE: CHECK TO SEE WHAT TYPE OF STARTER BOX WAS SHIPPED WITH YOUR SAW (GPE OR LVC). A GPE STARTER HAS ROUND “ON” AND “OFF” BUTTONS. A LVC STARTER HAS RECTANGLE “ON” AND “OFF” BUTTONS.

NOTE FOR GPE STARTER BOX: If your Unisaw was shipped with an GPE starter box, the GPE “ON/OFF” switch must be removed from the left side of the Unisaw. When assembling the left extension wing, do not install the front screw and washer at this time, it will be installed when assembling the on/off switch.

NOTE FOR LVC STARTER BOX: If your Unisaw was shipped with an LVC starter box, the LVC “ON/OFF” switch must be removed from the left side of the Unisaw. Save the hardware that attached the LVC “ON/OFF” switch to the Unisaw because it will be used to re-attach the “ON/OFF” switch to the left extension wing in the section “ASSEMBLING LVC ON/OFF SWITCH.”

Assemble the extension wing (A) Fig. 5, to the left side of the saw table using the three 7/16"-20x1¼" hex head screws (B) and 7/16" flat washers supplied. **NOTE: MAKE SURE FRONT EDGE OF WING IS FLUSH TO OR SLIGHTLY BEHIND THE FRONT EDGE OF THE TABLE.** Use a straight edge (C) Fig. 6, to make sure the extension wing (A) is level with the saw table before tightening the screws (B) Fig. 5.

Assemble the right extension wing in the same manner.

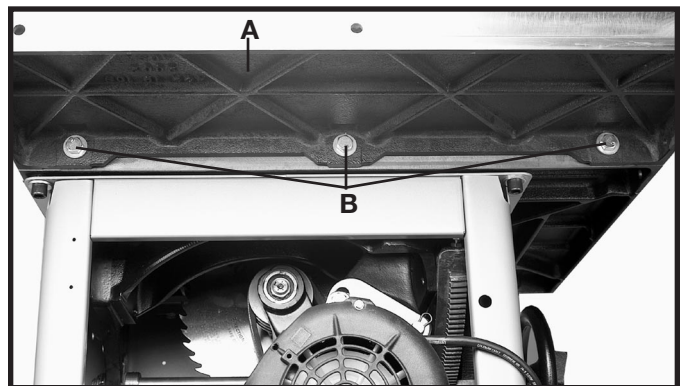


Fig. 5

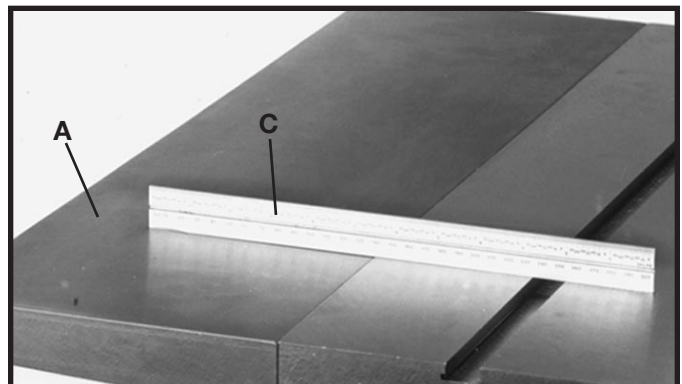


Fig. 6

LVC STARTER BOX TO CABINET

If you purchased the machine with magnetic push button electrical controls (LVC), the saw is shipped with the starter box completely wired to the switch and motor. However, the starter box must be mounted to the saw cabinet. To assemble the starter box (A) Fig. 7, to the saw cabinet, proceed as follows:

1. Place a 1/4" lockwasher then a 1/4" flat washer onto a 1/4-20x1/2" hex head screw. From the inside rear of the saw cabinet, insert the 1/4-20 x 1/2" hex head screw into the hole (B) Fig. 7, in the cabinet. Repeat this process for the two remaining screws.
2. Line up the three tapped holes (C) Fig. 7, in the starter box with the screws and secure the starter box (A), to the saw cabinet.
3. Figure 8 illustrates the starter box (A) assembled to the saw cabinet.

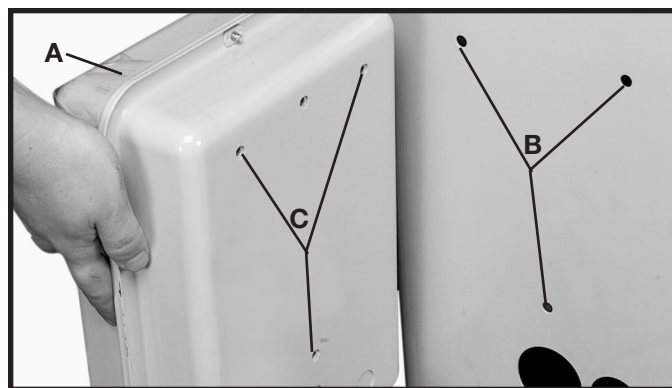


Fig. 7

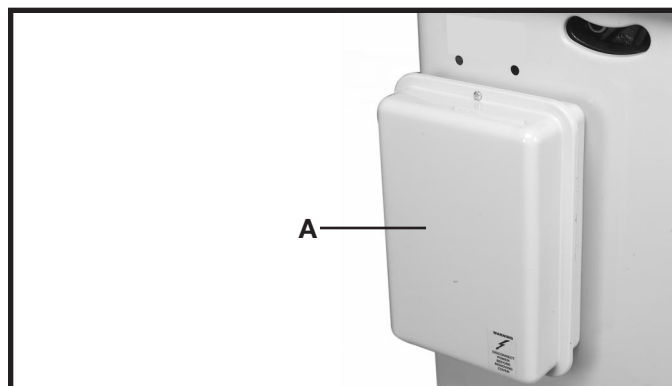


Fig. 8

LVC ON / OFF SWITCH

1. Locate the LVC switch and hardware that was removed in the section “**EXTENSION WING.**”
2. Mount the switch bracket (C) Fig. 9, to the inside of through hole D) on the left front edge of the extension wing with the hardware that was removed.

NOTE: If you have a GPE switch see “GPE ON/OFF Switch” instructions.

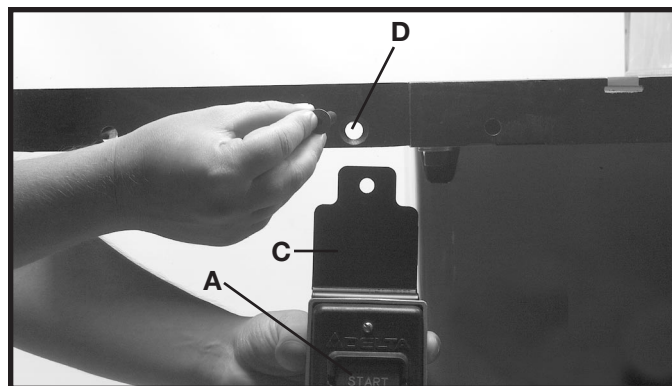


Fig. 9

GPE ON / OFF SWITCH

1. Locate the GPE switch and hardware that was removed in the section **"EXTENSION WINGS."**
2. Loosely assemble switch and switch bracket (A) Fig. 12, to the inside front lip of extension wing. Insert a 5/16-18x1" flat head screw (D) through hole (G), place a 5/16" flat washer (E) on screw and secure with a 5/16" hex nut (F).
3. Attach the side of switch bracket (A) Fig. 13, to the inside of extension wing at the front of the saw using the 7/16-20x1-1/4" screw (C) and 7/16" flat washer. Tighten screws (C) and (D) securely.

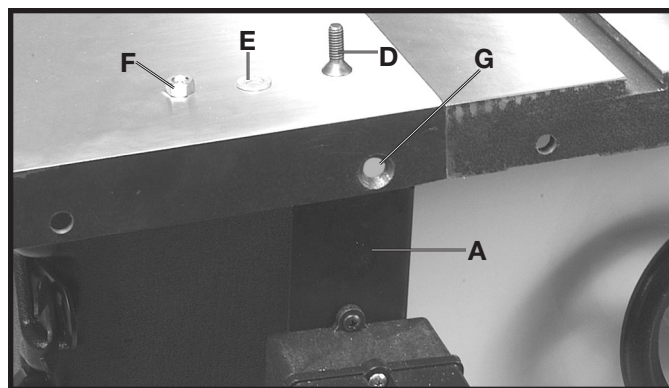


Fig. 12

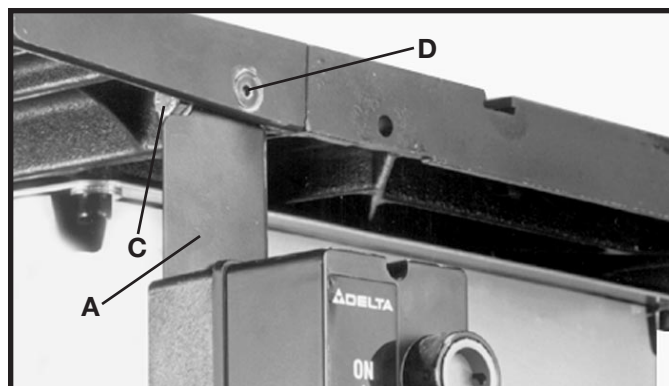


Fig. 13

BLADE GUARD AND SPLITTER ASSEMBLY

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Remove the table insert Fig. 14. Raise the saw arbor, by turning the locking handle on the front of the saw, counter clockwise and then turn the wheel on the front of the saw clockwise as far as it will go, and remove the saw blade from the machine by following the instructions in section **"CHANGING THE SAW BLADE"**.
2. The inside splitter mounting bracket (A) Fig. 15, is assembled to the inside of the saw and aligned with the inside blade flange (B) at the factory.
3. To check the alignment, remove screw and fastener plate (C) Fig. 15. Using a straight edge (D) Fig. 16, check to see if the splitter bracket (A) is aligned with the inside blade flange (B). Check both the top and bottom of bracket (A) with the top and bottom of flange (B).



Fig. 14

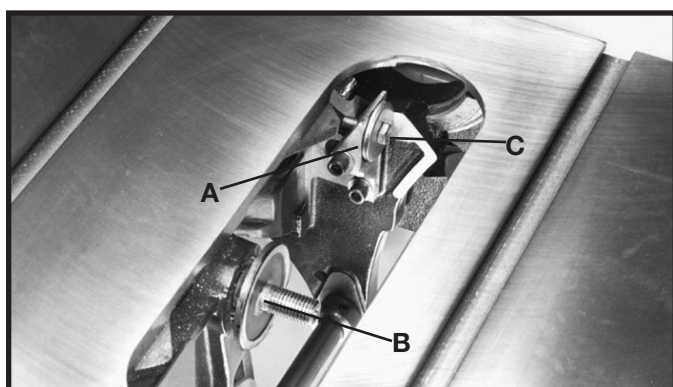


Fig. 15

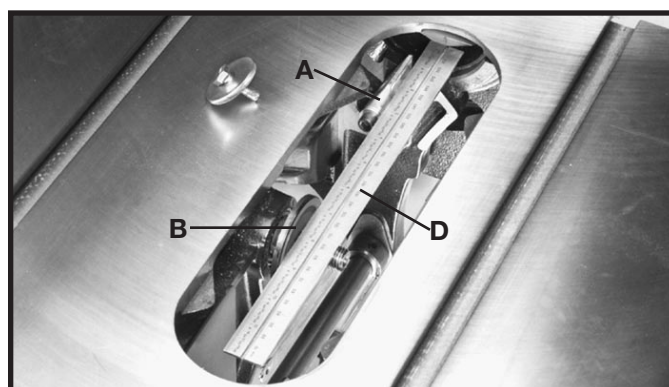


Fig. 16

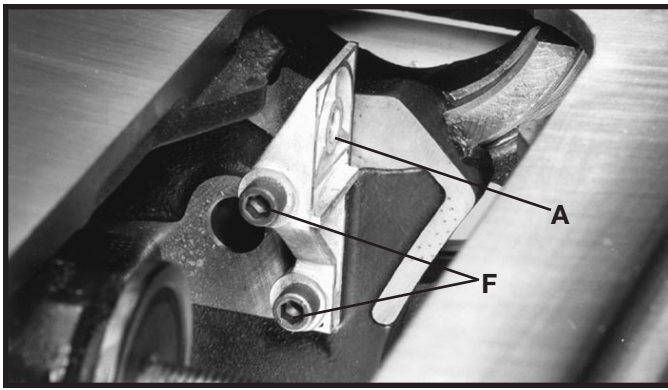


Fig. 17

4. If an adjustment is necessary, loosen two screws (F) Fig. 17, and adjust splitter bracket (A) until it is aligned with the inside blade flange (B) Fig. 15. Tighten two screws (F). Loosely assemble screw and fastener plate (C), which were removed in **STEP 3**.

5. Insert threaded end of support rod (G) Fig. 18, through slot in rear of saw and into hole in rear trunnion (H). Fasten support rod (G) to trunnion with star washer and 5/8-18 hex jam nut (J) Fig. 19. **NOTE:** Thread nut (J) Fig. 19, onto threads of support rod (G) as much as possible by hand.

6. Using a wrench to hold the 5/8-18 hex jam nut (J) Fig. 19, tighten rod (G) Fig. 20, with a small screwdriver (K) or similar device through the hole in the end of the rod as shown in Figure 20.

7. Assemble lower bracket (L) Fig. 21, to rod (G) and loosely tighten with two 5/16-18x1" hex head screws (S) and 5/16" lockwashers (T) from underneath bracket (L).

8. Align the hole in the upper splitter bracket (M) Fig. 22, with the hole in the lower splitter bracket (L). Place a 5/16" lockwasher, then a 5/16" flat washer, onto a 5/16-18x1" hex head screw (N), insert the screw (N) through the hole in the upper splitter bracket (M) and thread the screw into the lower splitter bracket (L). **NOTE:** Do not tighten screw (N) at this time.



Fig. 18



Fig. 19

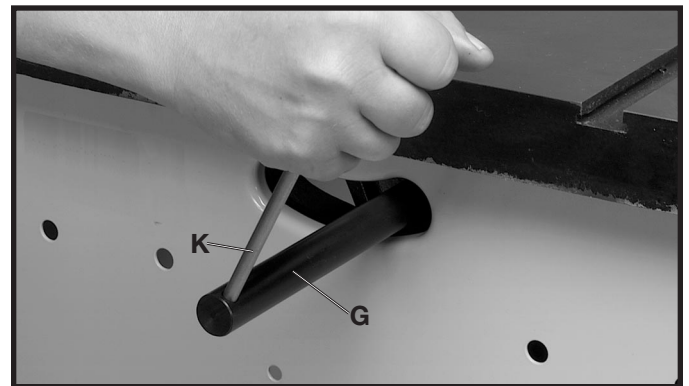


Fig. 20

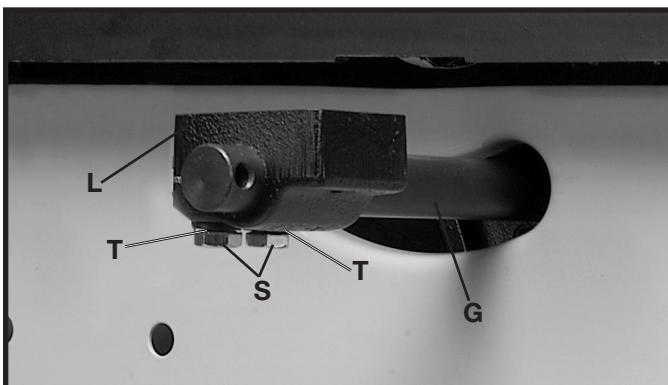


Fig. 21

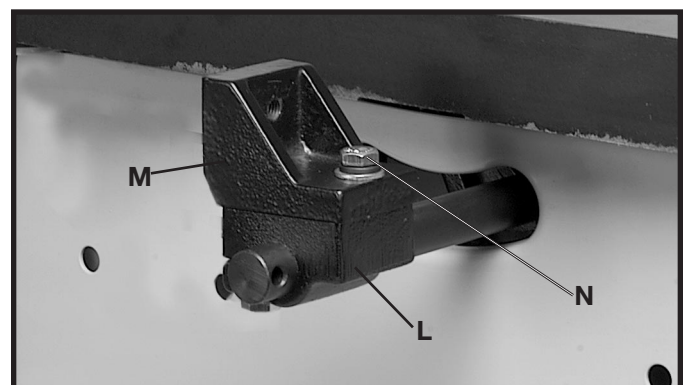


Fig. 22



Fig. 23

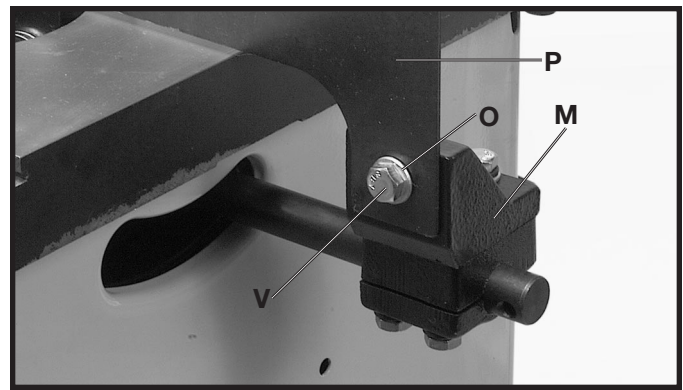


Fig. 24

9. Insert the front end of splitter (P) Fig. 23, inside the splitter mounting bracket behind splitter fastener plate and screw (C). Push splitter down as far as possible, making certain the bottom edge of splitter (P) is parallel with the table surface. Tighten screw (C). Fasten splitter and blade guard assembly (P) Fig. 24, to bracket (M) using a 5/16-18x1" hex head screw (V) and 5/16" flat washer (O).

10. **IMPORTANT:** The splitter (P) Fig. 25, features a notch (W) cut into the top edge. Raise the front of the clear blade guard (G) Fig. 25, until the rear edge of the guard slips into notch (W) of the splitter. This notch enables the blade guard to stay in the raised position and makes changing blades easier.

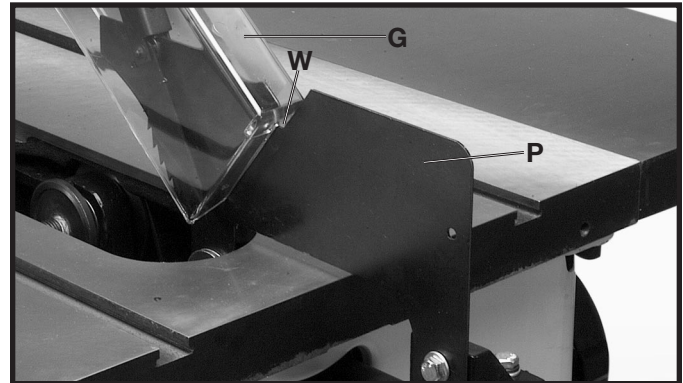


Fig. 25

11. Reassemble the saw blade, making certain the teeth are pointing down at the front of the saw table as shown in Fig. 26, and assemble the outside blade flange and arbor nut (X). With open end wrench (Y) on the flats of the arbor to keep it from turning, tighten arbor nut by turning box end wrench (Z) clockwise.

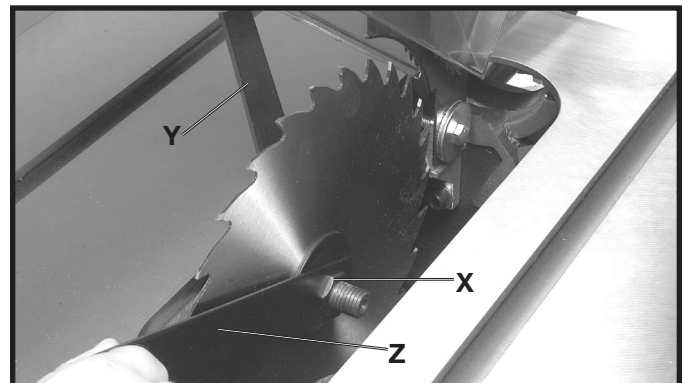


Fig. 26

12. Using a straight edge (A) Fig. 27, make certain the splitter (P) is aligned with the saw blade (B). Using a square (C) Figs. 28 and 29, make certain saw blade (B) Fig. 28, and splitter (P) Fig. 29, are 90 degrees to the table surface. Once you are certain the splitter is aligned to the saw blade and table, tighten all splitter mounting hardware (D) Fig. 29 and recheck alignment.

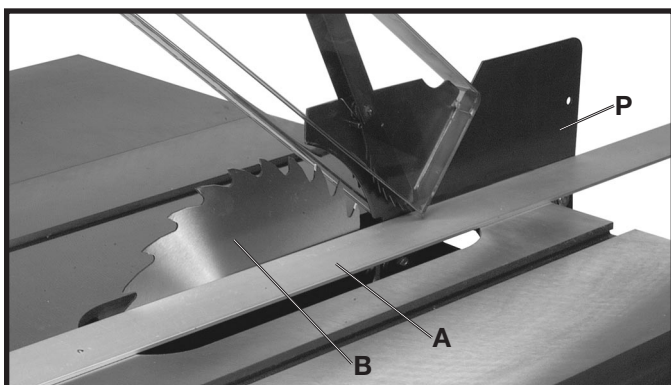


Fig. 27

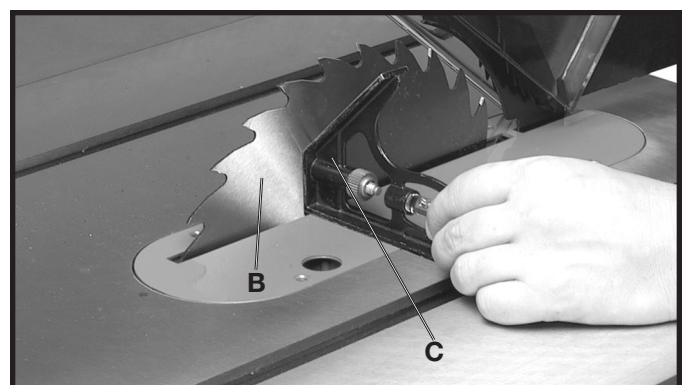


Fig. 28

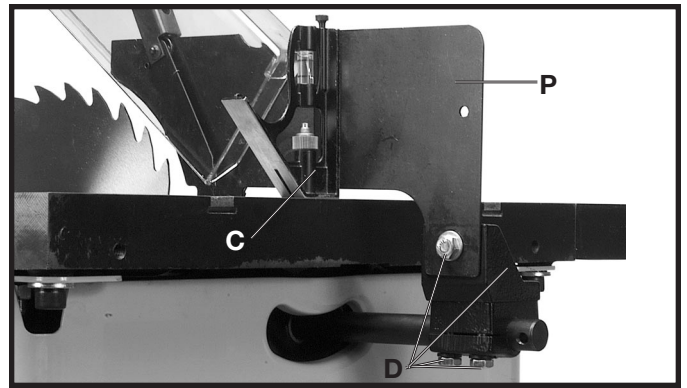


Fig. 29

13. Holding the clear blade guard, lower the saw blade and assemble the table insert (E) Fig. 30, into the opening on the saw table.

14. Place a straight edge (B) across the table at both ends of the table insert as shown in Fig. 31.

⚠ CAUTION THE TABLE INSERT (A) SHOULD ALWAYS BE LEVEL WITH THE TABLE.

If an adjustment is necessary, turn the adjusting screws (C), as needed, with the 1/8" allen wrench supplied.

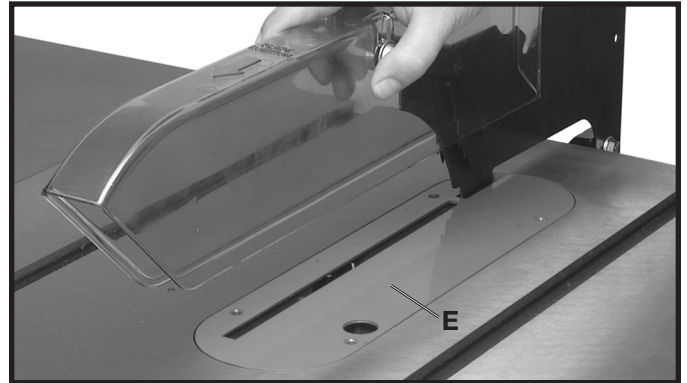


Fig. 30

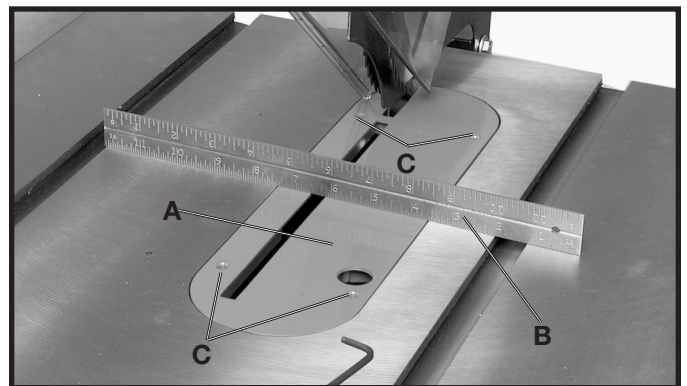


Fig. 31

MOTOR COVER

NOTE: IF YOU HAVE AN "LVC" (STARTER BOX) VERSION UNISAW, YOU WILL HAVE TO ATTACH TWO BOTTOM SPRING CLIPS TO THE MOTOR COVER. IF YOU HAVE AN "GPE" (STARTER BOX) VERSION UNISAW THE SPRING CLIPS ARE ALREADY ATTACHED TO THE MOTOR COVER.

1. Attach the two motor cover clips to the motor cover. Align the hole in the motor cover clip with the hole in the motor cover. Place a 13/64 flat washer onto a 10-32x1/2" screw (A), insert screw through the hole in the motor cover clip and thread screw (A) into the tapped hole in the motor cover, repeat this process for the remaining motor cover clip, Fig. 33.

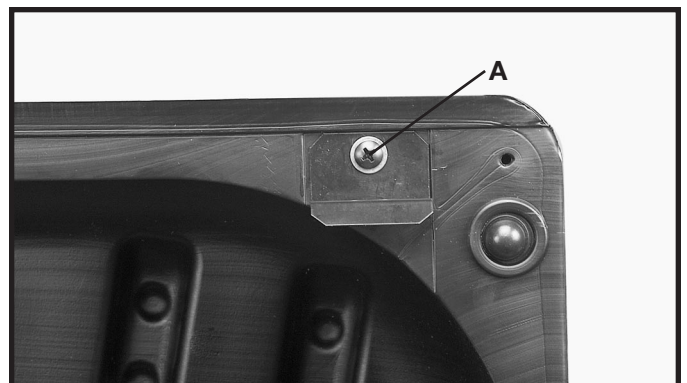


Fig. 33

2. Place the motor cover (A) in the opening of the Unisaw as shown in Fig. 34. Place the rear motor cover clips inside the motor opening and push the front of the motor cover until all four motor cover clips are engaged with the motor cover opening in the Unisaw.

3. Align the hole (B) Fig. 35 in the bottom of the motor cover with the hole in the side of the saw cabinet. Place a 1/4" flat washer on a 1/4-20x5/8" hex head screw. Insert screw through hole in motor cover and thread screw into hole in side of motor cabinet and tighten securely.

4. Fig. 35 shows the motor cover attached to the Unisaw.

NOTE: TO REMOVE THE MOTOR COVER, REMOVE THE 1/4-20x5/8" HEX HEAD SCREW (B) FIG. 35, AND PUSH MOTOR COVER TO ONE SIDE TO DEPRESS CLIPS, AND PULL MOTOR COVER OFF.



Fig. 34

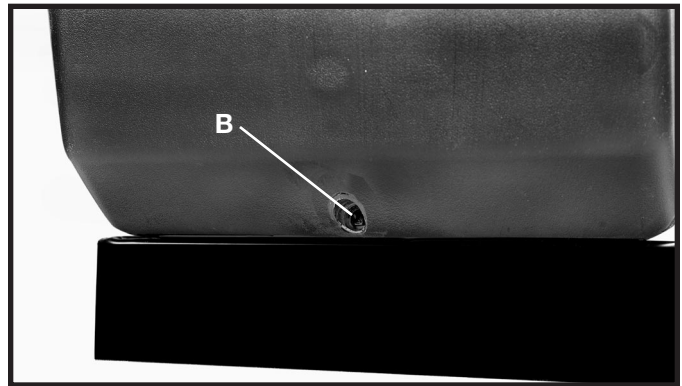


Fig. 35

RIP FENCE HOLDER BRACKETS

Assemble the rip fence holder brackets (A) and (B) Fig. 36, to the four holes located in the right hand side of the saw cabinet using four #10 x 1/2" sheet metal screws supplied.

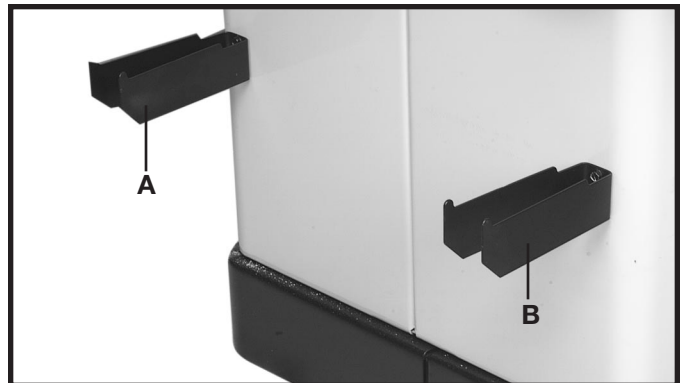


Fig. 36

DUST CHUTE ADAPTER

The Unisaw is supplied with a dust chute connector to provide a means of connecting a 4" diameter dust collector hose to the machine. Align the four holes in the dust chute adapter (A) Fig. 37, with the four holes in the back of the saw cabinet (B) and attach the dust chute adapter with four #10 x 1/2" sheet metal screws.

⚠ WARNING DO NOT MOUNT THE DUST CHUTE ADAPTER UNLESS A DUST COLLECTION SYSTEM IS USED IN CONJUNCTION WITH THE SAW, FOR THE DUST CHUTE ADAPTER WILL RESTRICT THE GRAVITY FEED OPENING FOR SAW DUST REMOVAL.

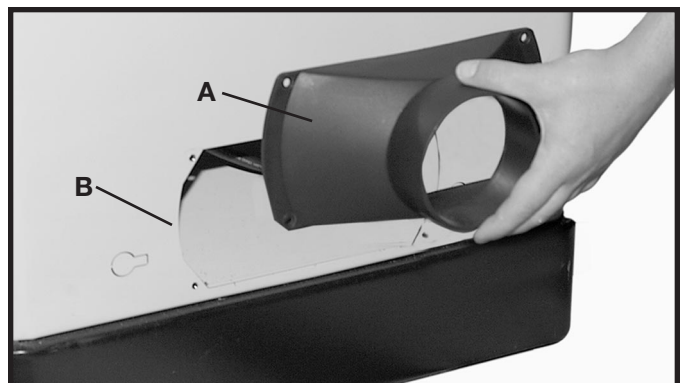


Fig. 37

OPERATING CONTROLS AND ADJUSTMENTS

STARTING AND STOPPING THE SAW

To start the machine, push “ON” button (A) Fig. 39. To stop the machine, push “OFF” button (B).

LOCKING SWITCH IN THE “OFF” POSITION

IMPORTANT: When the machine is not in use, the switch should be locked in the OFF position using a padlock (C) Fig. 40, with a 3/16" diameter shackle to prevent unauthorized use. **NOTE: GPE switch shown.**

OVERLOAD PROTECTION

Your saw is supplied with overload protection. If the motor shuts off or fails to start due to overloading (cutting stock too fast, using a dull blade, using the saw beyond its capacity, etc.) or low voltage, let the motor cool three to five minutes. The overload will automatically reset itself and the machine can then be started again by pressing the “ON” button.

CAUTION IF THE MOTOR CONTINUALLY SHUTS OFF DUE TO OVERLOADING, THE CAUSE OF OVERLOADING MUST BE CORRECTED. IF THIS HAPPENS, IT IS RECOMMENDED THAT YOU CONTACT A QUALIFIED ELECTRICIAN.

BLADE RAISING HANDWHEEL

The saw blade is raised and lowered with the front handwheel (A) Fig. 41. With the exception of hollow ground blades, the blade should be raised 1/8" to 1/4" above the top surface of the material being cut. With hollow ground blades, the blade should be raised the maximum to provide greater clearance. To raise the saw blade, loosen lock knob (B) Fig. 41, and turn the handwheel (A), clockwise. To lower the saw blade, turn handwheel (A) counterclockwise.

The saw blade is locked at any height by turning the lock knob (B) Fig. 41, clockwise. Due to the wedge action of this locking device, only a small amount of force is required to lock the blade raising mechanism securely. Any added force merely puts unnecessary strain on the locking device. Limit stops for raising or lowering are permanently built into the mechanism and need no further adjustment.

⚠ WARNING ALWAYS LOCK THE BLADE IN POSITION BEFORE STARTING THE SAW.

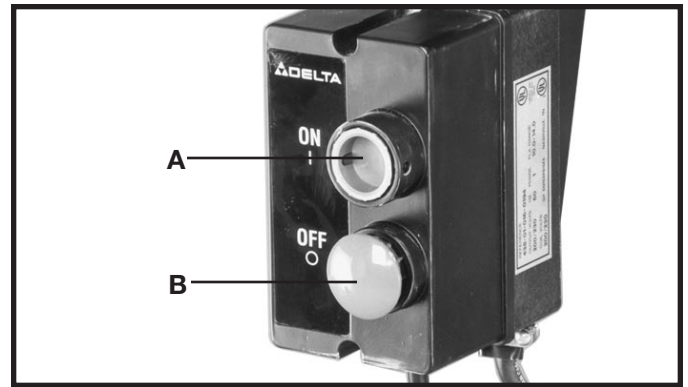


Fig. 39



Fig. 40

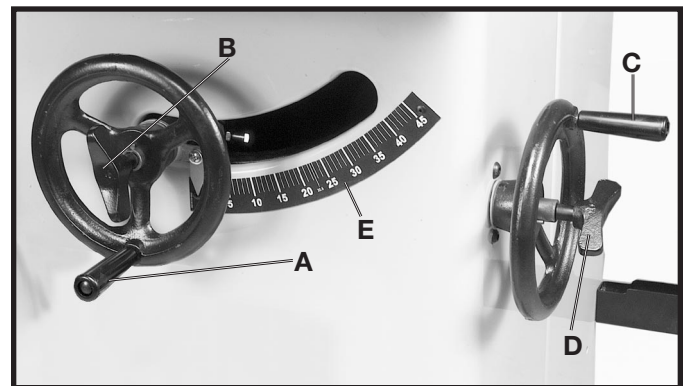


Fig. 41

BLADE TILTING HANDWHEEL

The blade tilting mechanism allows the blade to be tilted up to 45 degrees to the right.

To tilt the saw blade to the desired angle, loosen lock knob (D) Fig. 41, and turn handwheel (C). A pointer indicates the angle of tilt on scale (E), which is marked in one-degree increments. To lock the saw blade in the desired angle of tilt, tighten lock knob (D).

⚠ WARNING ALWAYS LOCK THE BLADE IN POSITION BEFORE STARTING THE SAW.

ADJUSTING 90 AND 45 DEGREE POSITIVE STOPS

Positive stops are provided to quickly and accurately position the blade at 90 and 45 degrees to the table. To check and adjust the positive stops, proceed as follows:

⚠ WARNING **DISCONNECT MACHINE FROM POWER SOURCE.**

1. Raise the saw blade all the way to the top and turn the blade tilting handwheel clockwise as far as it will go.
2. Using a square, check to see if the blade is 90 degrees to the table Fig. 41A. If an adjustment is necessary, turn the blade tilting handwheel counterclockwise. Loosen locknut (A) Fig. 42, and tighten or loosen adjusting screw (B) until head of screw (B) contacts casting on front trunnion when the blade is at 90 degrees to the table. Then tighten locknut (A).
3. Check to see if the tilt indicator pointer points to the zero mark on the scale. Adjust if necessary.
4. Turn the blade tilting handwheel counterclockwise as far as it will go. Using a square, check to see if the blade is at 45 degrees to the table Fig. 41B. If an adjustment is necessary, turn the blade tilting handwheel clockwise until the adjusting screw (D) Fig. 43, and locknut (C) are in view, in the opening in the front of the saw cabinet, as shown. Loosen locknut (C) and tighten or loosen adjusting screw (D) until head of screw (D) contacts casting on front trunnion when the blade is at 45 degrees to the table. Then tighten locknut (C).

ADJUSTING TABLE

The saw table has been aligned at the factory so the miter gage slots are parallel to the saw blade; however, it is recommended to check the alignment before initial operation as follows:

⚠ WARNING **DISCONNECT MACHINE FROM POWER SOURCE.**

1. Place a combination square (A) Fig. 44, on the table with one edge of the square in the miter gage slot, as shown, and adjust the square so the rule just touches one of the teeth on the saw blade at the forward position, as shown in Fig. 44. Lock the square in this position.
2. Rotate the saw blade so that the same tooth you used in **STEP 2** is in the rear position, as shown in Fig. 45, and check this distance. Both the front and rear measurements should be identical.
3. If an adjustment is necessary, loosen the four screws that hold the table to the saw cabinet.
4. Shift the table until a position is found which brings the saw blade in the center of the table insert slot, and parallel to the miter gage slot.
5. Tighten the four screws that were loosened in **STEP 3**.
6. Tilt the blade to 45 degrees, and turn the saw blade by hand, and insure it does not contact the table insert.

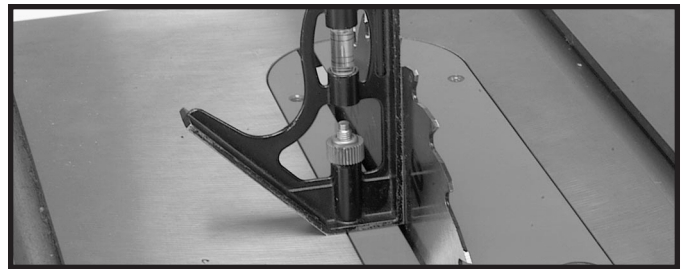


Fig. 41A



Fig. 41B

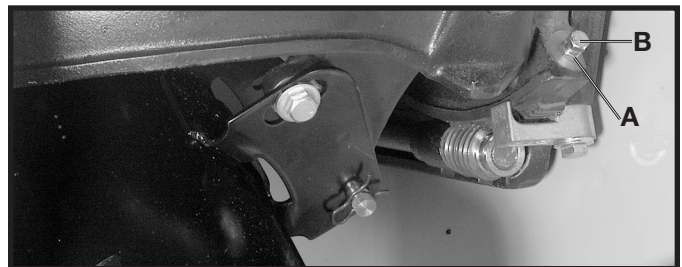


Fig. 42

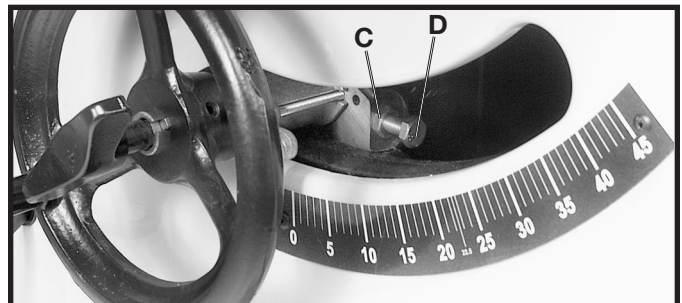


Fig. 43

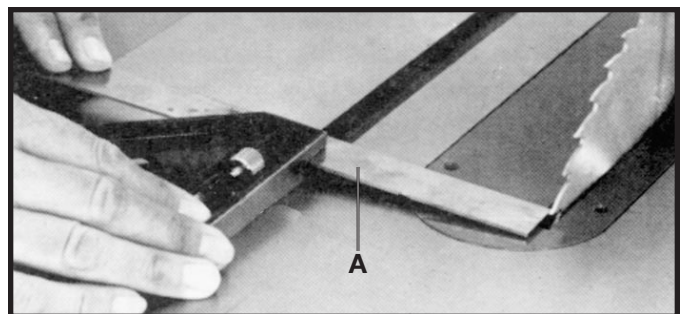


Fig. 44

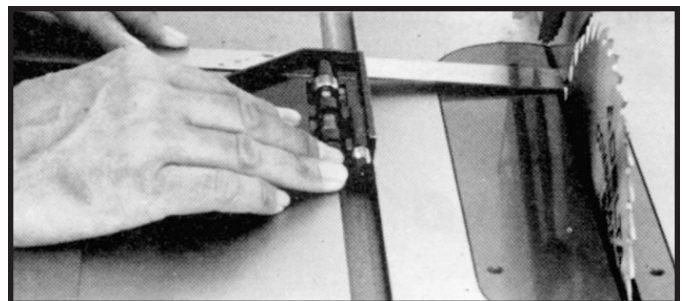


Fig. 45

ADJUSTING TABLE INSERT

Place a straight edge (B) across the table at both ends of the table insert as shown in Fig. 46.

⚠ CAUTION The table insert (A) should always be level with the table.

If an adjustment is necessary, turn the adjusting screws (C), as needed, with allen wrench supplied. **NOTE: THE MITER GAGE HANDLE CAN BE USED TO STORE THE HEX WRENCHES WHEN NOT IN USE. REMOVE THE TOP CAP OF THE MITER GAGE HANDLE FOR THE HEX WRENCH STORAGE COMPARTMENT.**

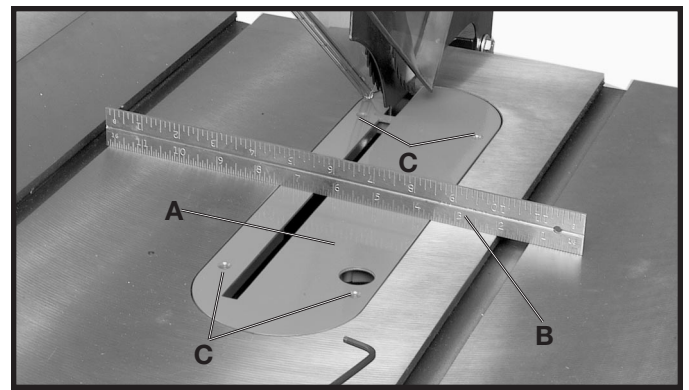


Fig. 46

MITER GAGE OPERATION AND ADJUSTMENT

Insert the miter gage bar into the miter gage slot and assemble the washer and lock handle (A) Fig. 47, to the miter gage bar as shown.

The miter gage is equipped with adjustable index stops at 90 degrees and 45 degrees right and left. Adjustment to the index stops can be made by tightening or loosening the three adjusting screws (B) Fig. 48, with allen wrench supplied.

To rotate the miter gage, loosen lock knob (A) Fig. 48, flip the stop link (D) down and out of the way, and move the body of the miter gage (C), to the desired angle.

The miter gage body (C) can stop at 90 degrees and 45 degrees both right and left by flipping the stop link down and out of the way and moving the miter gage body (C) past the 90 and 45 degrees mark and flipping the stop link (D) back up so that the stop link (D) will be able to contact the adjusting screws (B) at the desired 90 or 45 degree angle. To rotate the miter gage body past these points, the stop link (D) Fig. 48, must be down and out of the way.

The head of the miter gage pivots on a special tapered screw (G) that fastens the head to the miter gage bar. If the miter gage head does not pivot freely, or pivots too freely, it can be adjusted by loosening set screw (H) Fig. 49, and turning the screw (G) in or out. Be certain to tighten screw (H) after adjustment is made.

Your miter gage is equipped with a plate (E) Fig. 49, which fits into the T-Slot groove in the table. This allows the miter gage to be pulled off the front edge of the table without falling. This allows for a longer cut off capacity in front of the blade.

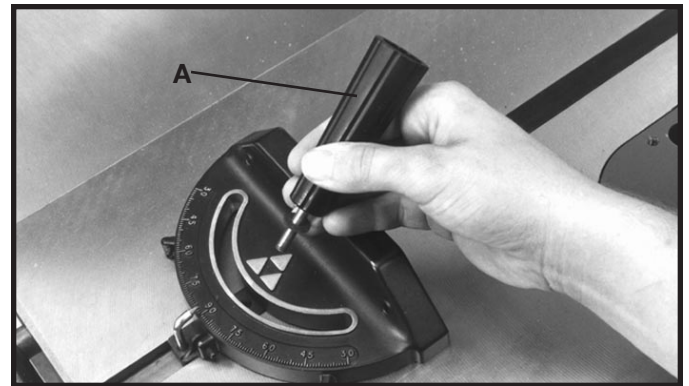


Fig. 47

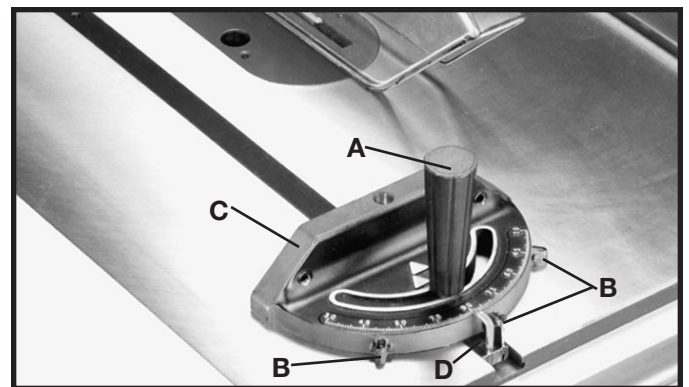


Fig. 48

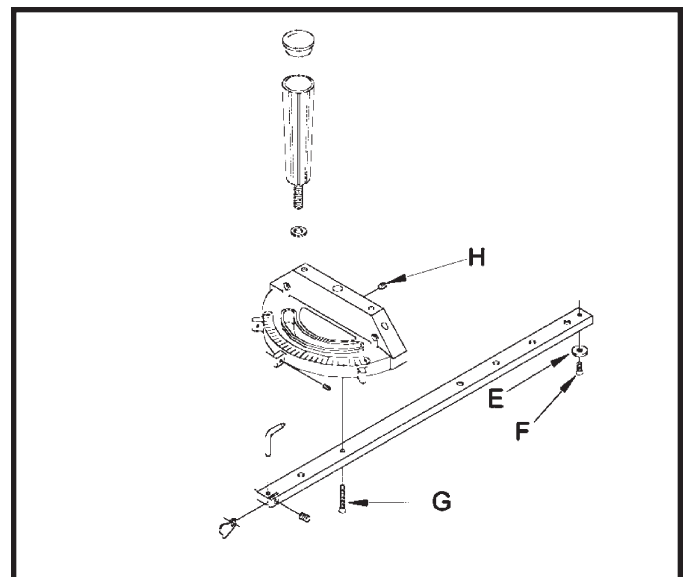


Fig. 49

OPERATIONS

Common sawing operations include ripping and crosscutting plus a few other standard operations of a fundamental nature. As with all power machines, there is a certain amount of hazard involved with the operation and use of the machine. Using the machine with the respect and caution demanded as far as safety precautions are concerned, will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or completely ignored, personal injury to the operator can result. The following information describes the safe and proper method for performing the most common sawing operations.

⚠ WARNING THE USE OF ATTACHMENTS AND ACCESSORIES NOT RECOMMENDED BY DELTA MAY RESULT IN THE RISK OF INJURY TO PERSONS.

CROSS-CUTTING

Cross-cutting requires the use of the miter gage to position and guide the work. Place the work against the miter gage and advance both the gage and work toward the saw blade, as shown in Fig. 50. The miter gage may be used in either table slot. When bevel cutting (blade tilted), use the right miter gage slot so that the blade tilts away from the miter gage and your hands.

Start the cut slowly and hold the work firmly against the miter gage and the table. One of the rules in running a saw is that you never hang onto or touch a free piece of work. Hold the supported piece, not the free piece that is cut off. The feed in cross-cutting continues until the work is cut in two, and the miter gage and work are pulled back to the starting point. Before pulling the work back, it is good practice to give the work a little sideways shift to move the work slightly away from the saw blade. Never pick up any short length of free work from the table while the saw is running. Never touch a cutoff piece unless it is at least a foot long.

For added safety and convenience the miter gage can be fitted with an auxiliary wood-facing (C), as shown in Fig. 51, that should be at least 1 inch higher than the maximum depth of cut, and should extend out 12 inches or more to one side or the other depending on which miter gage slot is being used. This auxiliary wood-facing (C) can be fastened to the front of the miter gage by using two wood screws (A) through the holes provided in the miter gage body and into the wood-facing.

⚠ CAUTION When using the block (B) Fig. 52, as a cut-off gage, it is very important that the rear end of the block be positioned so the work piece is clear of the block before it enters the blade.

⚠ WARNING NEVER USE THE FENCE AS A CUT-OFF GAGE WHEN CROSS-CUTTING.

When cross-cutting a number of pieces to the same length, a block of wood (B), can be clamped to the fence and used as a cut-off gage as shown in Fig. 52. It is important that this block of wood always be positioned in front of the saw blade as shown. Once the cut-off length is determined, secure the fence and use the miter gage to feed the work into the cut.

This block of wood allows the cut-off piece to move freely along the table surface without binding between the fence and the saw blade, thereby lessening the possibility of kickback and injury to the operator.



Fig. 50



Fig. 51

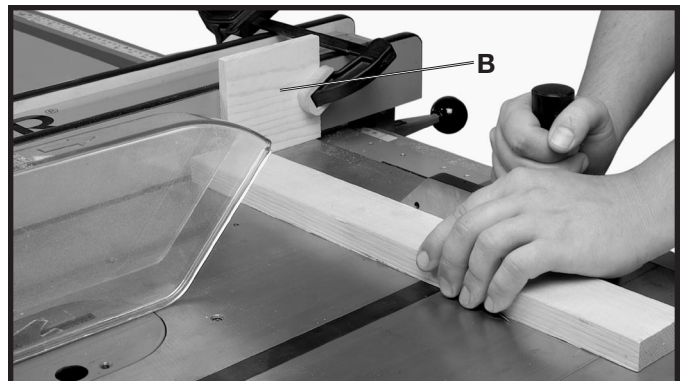


Fig. 52

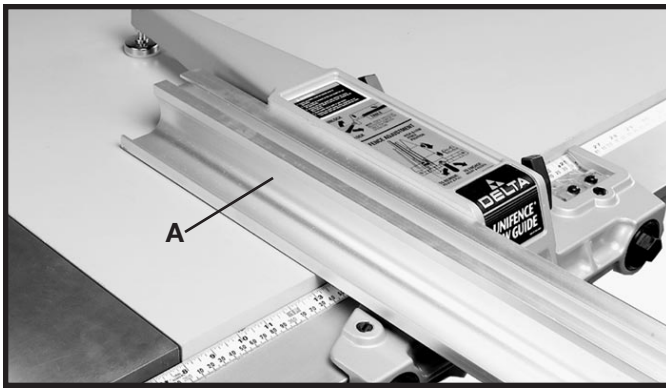


Fig. 53



Fig. 54

USING THE UNIFENCE AS A CUT-OFF GAGE

⚠ WARNING WHEN USING YOUR UNIFENCE SAW GUIDE® AS A CUT-OFF GAGE, MAKE SURE IT IS PROPERLY SET UP AS DESCRIBED HERE.

The Unifence can be used as a cut-off gage when cross cutting a number of pieces to the same length.

⚠ CAUTION When using the unifence as a cut-off gage, it is very important that the rear end of the fence be positioned so the work piece is clear of the fence before it enters the blade. When using the fence as a cut-off gage, position the fence (A) to the front as shown in Fig. 53, or purchase a 12" long fence (B), as shown in Fig. 54. A typical operation using the 12" long fence (B) as a cut-off gage is shown in Fig. 55.

RIPPING

⚠ WARNING A RIP FENCE SHOULD ALWAYS BE USED FOR RIPPING OPERATIONS. NEVER PERFORM A RIPPING OPERATION FREE-HAND.

Ripping is the operation of making a lengthwise cut through a board, as shown in Fig. 56, and the rip fence (A) is used to position and guide the work. One edge of the work rides against the rip fence while the flat side of the board rests on the table. Since the work is pushed along the fence, it must have a straight edge and make solid contact with the table. The saw guard must be used. The guard has anti-kickback fingers to prevent wood kickback, and a splitter to prevent the wood kerf from closing and binding the blade.

Start the motor and advance the work holding it down and against the fence. Never stand in the line of the saw cut when ripping. Hold the work with both hands and push it along the fence and into the saw blade as shown in Fig. 56. The work can then be fed through the saw blade with one or two hands. After the work is beyond the saw blade and anti-kickback fingers, the hand is removed from the work. When this is done the work will either stay on the table, tilt up slightly and be caught by the rear end of the guard or slide off the table to the floor. Alternately, the feed can continue to the end of the table, after which the work is lifted and brought back along the outside edge of the fence. The cut-off stock remains on the table and is not touched with the hands until the saw blade is

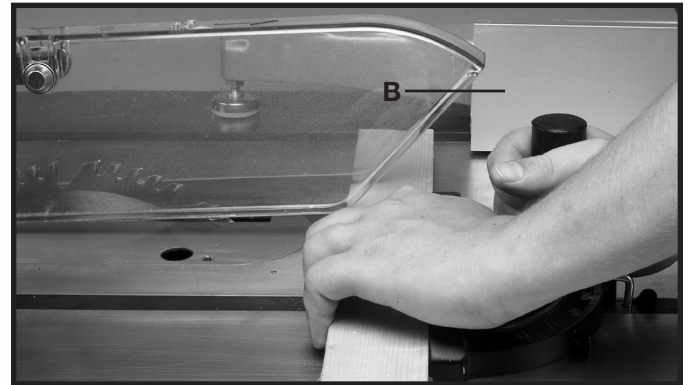


Fig. 55



Fig. 56



Fig. 57

stopped, unless it is a large piece allowing safe removal. When ripping boards longer than three feet, it is recommended that a work support be used at the rear of the saw to keep the workpiece from falling off the saw table.

⚠ WARNING If the ripped work is less than 4 inches wide, a push stick should always be used to complete the feed, as shown in Fig. 57. The push stick can easily be made from scrap material as explained in the section **“CONSTRUCTING A PUSH STICK.”** When ripping material under 2 inches in width, a flat pushboard is a valuable accessory since ordinary push sticks may interfere with the blade guard. That flat pushboard can be made as shown in Fig. 58.

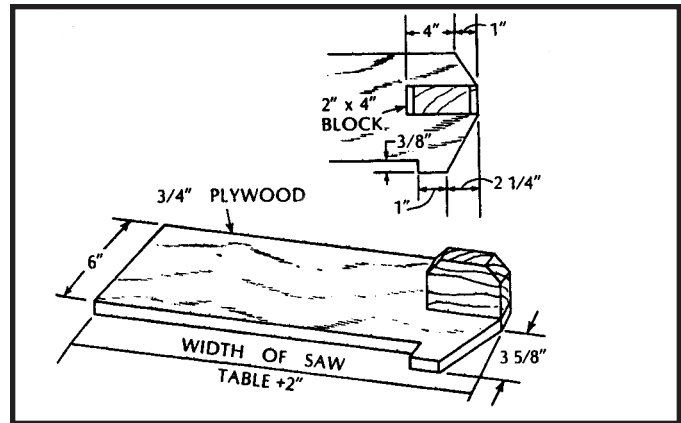


Fig. 58

USING AUXILIARY WOOD FACING ON BIESEMEYER RIP FENCE

CAUTION It is necessary when performing special operations such as moulding to add wood facing (A) Fig. 59, to one or both sides of the rip fence, as shown. The wood facing is attached to the fence with two clamps (B). 3/4 inch stock is suitable for most work although an occasional job may require 1 inch facing.

A wood facing should be used when ripping thin material such as paneling to prevent the material from catching between the bottom of the rip fence and the saw table surface.

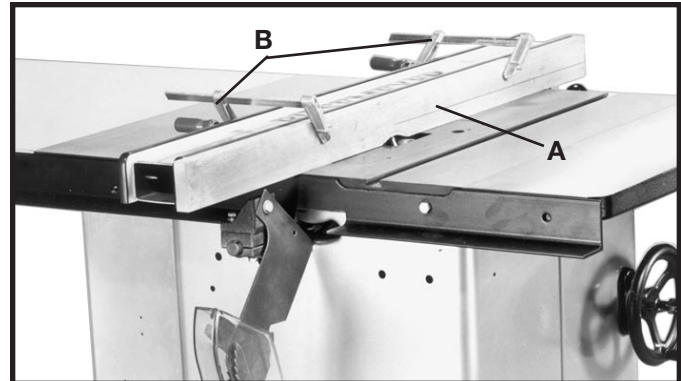


Fig. 59

USING AUXILIARY WOOD FACING ON THE UNIFENCE

CAUTION It is necessary when performing special operations such as when using the moulding cutterhead to add wood facing (A) Fig. 60, to one side of the rip fence as shown. The wood facing is attached to the fence with wood screws through holes you drill in the fence. A suitable stock size for most work is 3/4", although an occasional job may require one inch facing.

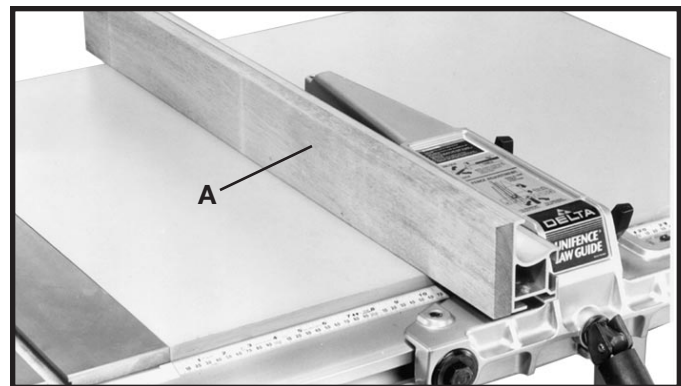


Fig. 60

USING ACCESSORY MOULDING CUTTERHEAD

Moulding is cutting a shape on the edge or face of the work. Cutting mouldings with a moulding cutterhead in the circular saw is a fast, safe and clean operation. The many different knife shapes available make it possible for the operator to produce almost any kind of mouldings, such as various styles of corner moulds, picture frames, table edges, etc.

The moulding head consists of a cutterhead in which can be mounted various shapes of steel knives, as shown in Fig. 61. Each of the three knives in a set is fitted into a groove in the cutterhead and securely clamped with a screw. The knife grooves should be kept free of sawdust, which would prevent the cutter from seating properly.

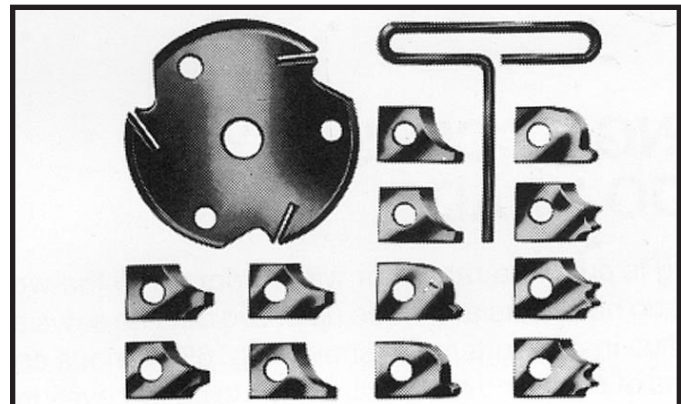


Fig. 61

IMPORTANT: For certain cutting operations such as dadoing and moulding where you are not cutting completely through the workpiece, the blade guard and splitter assembly cannot be used. Loosen screws (G) and (H) Fig. 62. Lift up and swing blade guard and splitter assembly (W) Fig. 63, to the rear of the saw, and then tighten screws (G) and (H).

⚠ WARNING ALWAYS RETURN AND FASTEN THE BLADE GUARD AND SPLITTER ASSEMBLY TO ITS PROPER OPERATING POSITION FOR NORMAL THRU-SAWING OPERATIONS.

The moulding cutterhead (A) Fig. 64, is assembled to the saw arbor as shown. **NOTE: THE OUTSIDE ARBOR FLANGE CAN NOT BE USED WITH THE MOULDING CUTTERHEAD, TIGHTEN THE ARBOR NUT AGAINST THE CUTTERHEAD BODY. DO NOT LOSE THE OUTSIDE ARBOR FLANGE, FOR IT WILL BE NEEDED WHEN REATTACHING A BLADE TO THE UNISAW ARBOR.**

⚠ CAUTION ALSO, THE ACCESSORY MOULDING CUTTERHEAD TABLE INSERT (B), MUST BE USED IN PLACE OF THE STANDARD TABLE INSERT.

CAUTION It is necessary when using the moulding cutterhead to add wood-facing (C) to the face of the rip fence, as shown in Fig. 65. The wood-facing is attached to the Biesemeyer fence with two clamps, as shown (refer to the Unifence section of this manual for attaching wood facing to a Unifence). 3/4 inch stock is suitable for most work although an occasional job may require 1 inch facing.

Position the wood-facing over the cutterhead with the cutterhead below the surface of the table. Turn the saw on and raise the cutterhead. The cutterhead will cut its own groove in the wood-facing. Fig. 65, shows a typical moulding operation.

⚠ WARNING NEVER USE MOULDING CUTTERHEAD IN A BEVEL POSITION.

⚠ WARNING NEVER RUN THE STOCK BETWEEN THE FENCE AND THE MOULDING CUTTERHEAD AS IRREGULAR SHAPED WOOD WILL CAUSE KICKBACK.

When moulding end grain, the miter gage is used. The feed should be slowed up at the end of the cut to prevent splintering.

In all cuts, attention should be given the grain, making the cut in the same direction as the grain whenever possible.

⚠ WARNING ALWAYS INSTALL BLADE GUARD AFTER OPERATION IS COMPLETE.



Fig. 62

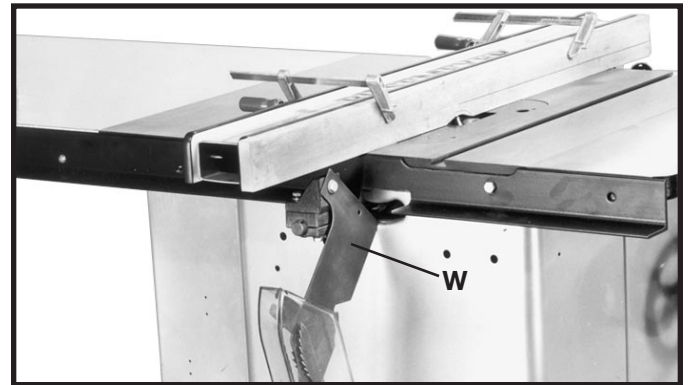


Fig. 63

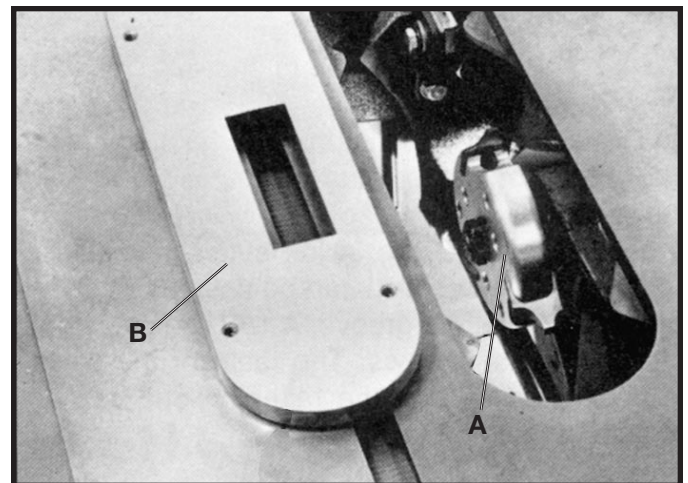


Fig. 64



Fig. 65

USING ACCESSORY DADO HEAD

⚠ WARNING THE BLADE GUARD AND SPLITTER ASSEMBLY CANNOT BE USED WHEN DADOING OR MOULDING AND MUST BE REMOVED OR SWUNG TO THE REAR OF THE SAW.

Dadoing is cutting a rabbet or wide groove into the work. Most dado head sets are made up of two outside saws and four or five inside cutters, as shown in Fig. 66. Various combinations of saws and cutters are used to cut grooves from 1/8" to 13/16" for use in shelving, making joints, tenoning, grooving, etc. The cutters are heavily swaged and must be arranged so that this heavy portion falls in the gullets of the outside saws, as shown in Fig. 67. The saw and cutter overlap is shown in Fig. 68, (A) being the outside saw, (B) an inside cutter, and (C) a paper washer or washers which can be used as needed to control the exact width of groove. A 1/4" groove is cut by using the two outside saws. The teeth of the saws should be positioned so that the raker on one saw is beside the cutting teeth on the other saw.

The dado head set (D) Fig. 69, is assembled to the saw arbor as shown. **NOTE: THE OUTSIDE ARBOR FLANGE CAN NOT BE USED WITH THE DADO HEAD SET, TIGHTEN THE ARBOR NUT AGAINST THE DADO HEAD SET BODY. DO NOT LOSE THE OUTSIDE ARBOR FLANGE, FOR IT WILL BE NEEDED WHEN REATTACHING A BLADE TO THE UNISAW ARBOR.**

⚠ CAUTION THE ACCESSORY DADO HEAD SET TABLE INSERT (E) FIG. 69, MUST BE USED IN PLACE OF THE STANDARD TABLE INSERT.

⚠ WARNING THE BLADE GUARD AND SPLITTER ASSEMBLY CANNOT BE USED WHEN DADOING AND MUST BE REMOVED OR SWUNG TO THE REAR OF THE SAW AS EXPLAINED PREVIOUSLY IN THIS MANUAL. AUXILIARY JIGS, FIXTURES, PUSH STICKS AND FEATHER BOARDS SHOULD ALSO BE USED.

Fig. 70, shows a typical dado operation using the miter gage as a guide.

⚠ WARNING NEVER USE THE DADO HEAD IN A BEVEL POSITION.

⚠ WARNING ALWAYS INSTALL BLADE GUARD AFTER OPERATION IS COMPLETED.

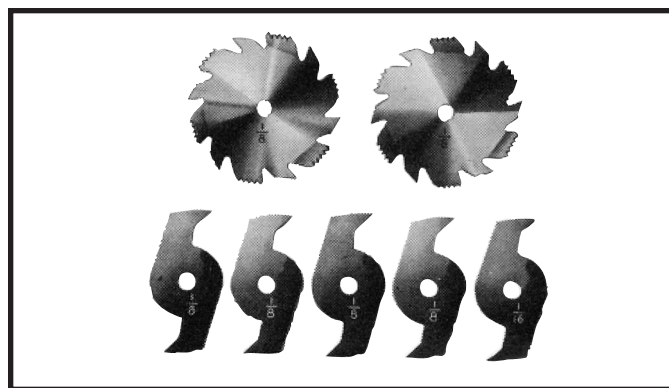


Fig. 66

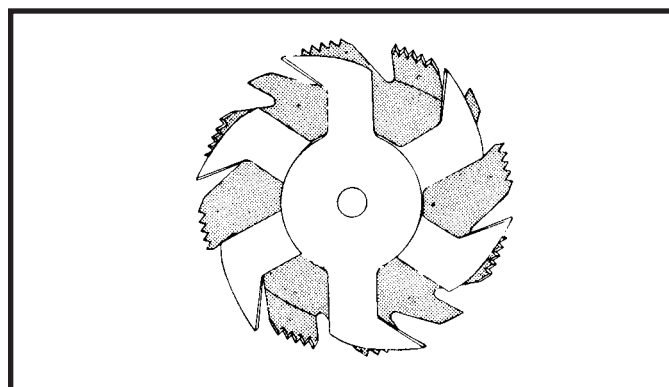


Fig. 67

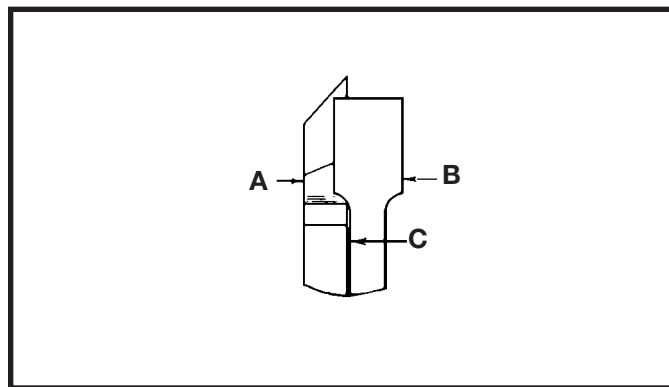


Fig. 68

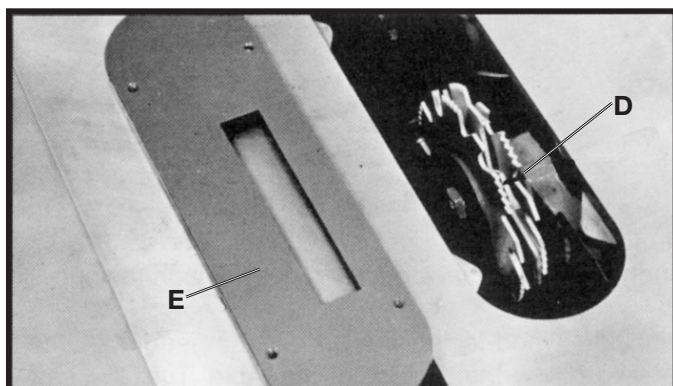


Fig. 69

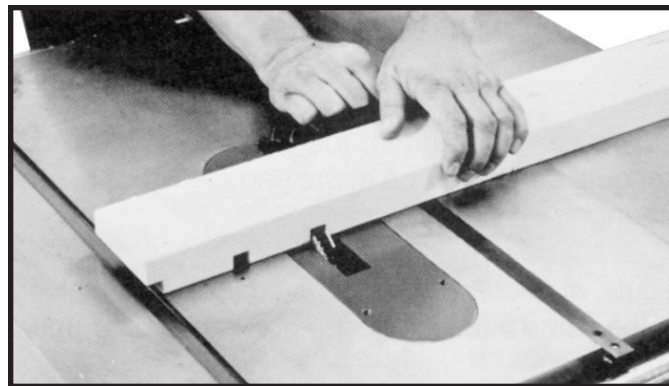


Fig. 70

STORAGE

MITER GAGE HOLDER AND WRENCH HOLDER

The miter gage and arbor wrenches can be stored in the slots provided in the motor cover, as shown in Fig. 71.



Fig. 71

HEX WRENCH STORAGE

The miter gage handle can be used to store the two hex wrenches (1/8", 5/64") supplied with the machine. Remove the top cap (A) Fig. 72, of the miter gage handle for the hex wrench storage compartment.

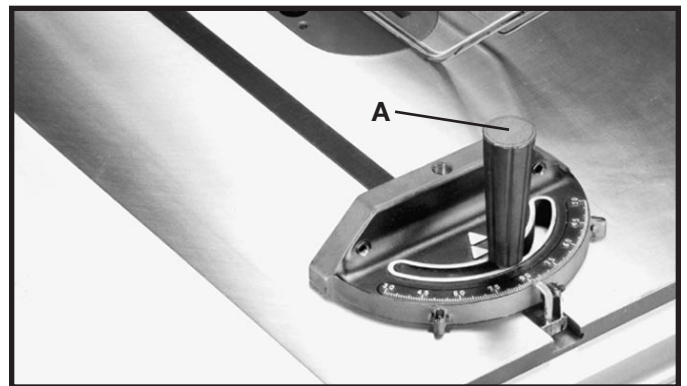


Fig. 72

MAINTENANCE

CHANGING THE SAW BLADE

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. **NOTE:** Two wrenches are supplied with the saw for changing the saw blade; a box end wrench and open end wrench.
2. Remove table insert and raise saw blade to its maximum height.
3. Place the open end wrench (B) Fig. 73, on the flats of the saw arbor to keep the arbor from turning, and using box end wrench (A), turn the arbor nut (C) counterclockwise. Remove arbor nut, blade flange and saw blade.
4. Assemble the new blade, making certain the teeth are pointing down at the front of the saw table and assemble outside blade flange and arbor nut. With wrench (B) Fig. 73, on the flats of the arbor to keep it from turning, tighten arbor nut by turning box end wrench (A) clockwise.
5. Replace table insert.

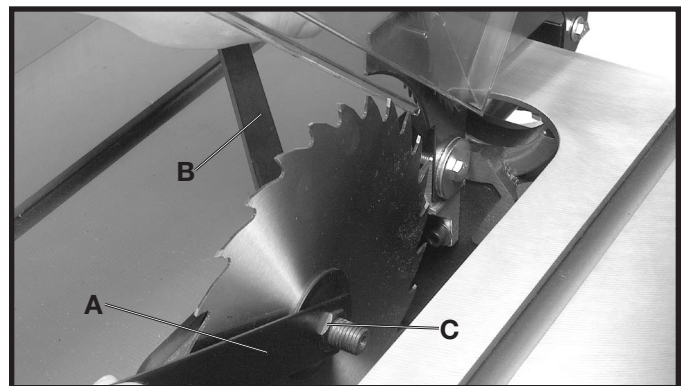


Fig. 73

NOTE: Use only 10" saw blades with 5/8" arbor holes, rated for at least 4000 RPM.

REPLACING BELTS AND ADJUSTING BELT TENSION

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Remove motor cover to gain access to the motor.
2. Place a block of wood (C) Fig. 74, between the motor and saw cabinet as shown. **NOTE:** It may be necessary to raise the saw arbor in order to insert the wooden block. Lower the saw arbor until the motor contacts the wood.
3. Loosen bolt (D) Fig. 74, and continue to lower the saw arbor until all tension is removed from the belts (E). Tighten bolt (D).
4. Raise the saw arbor slightly and remove the block of wood (C) Fig. 74.
5. Lower the saw arbor. Remove the belts (E) Fig. 74, one at a time from the motor pulley.
6. Remove the belts (E) Fig. 75, one at a time from the arbor pulley (F).
7. Assemble the three new belts, one at a time in the grooves of the arbor pulley (F) Fig. 75, and onto the motor pulley.
8. When the new belts are assembled on the arbor pulley (F) Fig. 75 and the motor pulley, loosen screw (D) Fig. 74, and carefully let the motor rest on the belts.
9. Correct belt tension is when there is approximately 1/4" deflection in the center span of the pulleys, using light finger pressure. After tension is applied, tighten screw (D) Fig. 74.

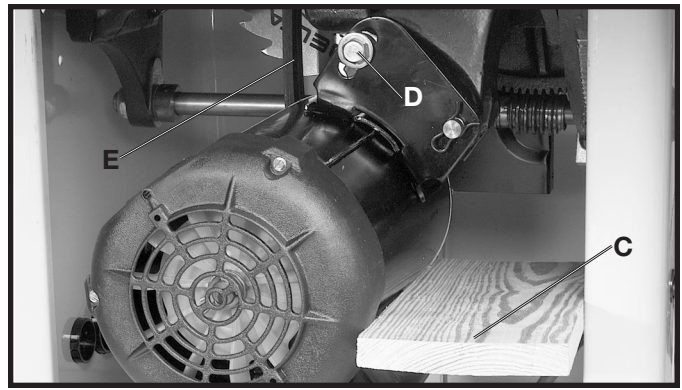


Fig. 74

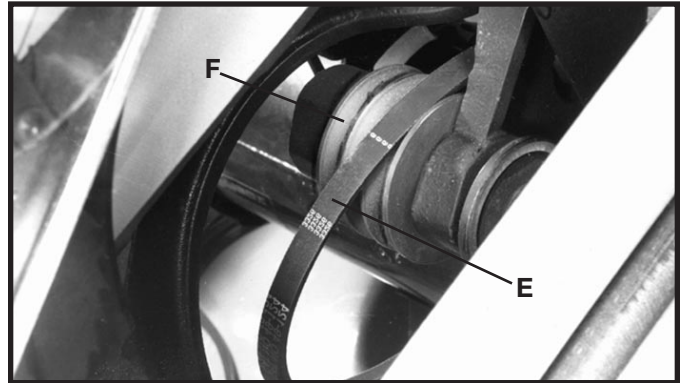


Fig. 75

PROTECTING CAST IRON TABLE FROM RUST

To clean and protect cast iron tables from rust, you will need the following materials: 1 pushblock from a jointer, 1 sheet of medium Scotch-Brite™ Blending Hand Pad, 1 can of WD-40®, 1 can of degreaser, 1 can of TopCote® Aerosol. Apply the WD-40 and polish the table surface with the Scotch-Brite pad using the pushblock as a holddown. Degrease the table, then apply the TopCote®.

CONSTRUCTING A FEATHERBOARD

Fig. 80, illustrates dimensions for making a typical featherboard. The material which the featherboard is constructed of, should be a straight piece of wood that is free of knots and cracks. Featherboards are used to keep the work in contact with the fence and table and help prevent kickbacks. Clamp the featherboards to the fence and table so that the leading edge of the featherboards will support the workpiece until the cut is completed.

⚠ WARNING Use featherboards for all non “thru-sawing” operations where the guard and spreader assembly must be removed (see Fig. 79). Always replace the guard and spreader assembly when the non thru-sawing operation is completed.

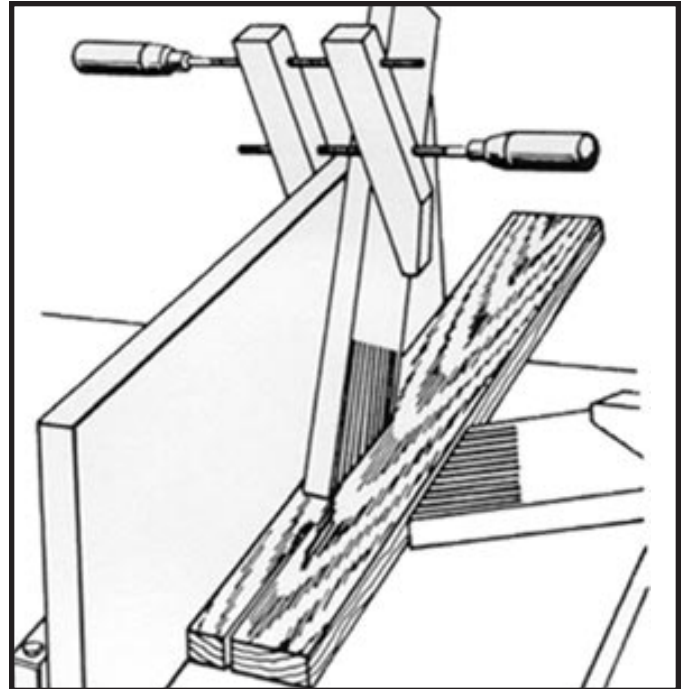


Fig. 79

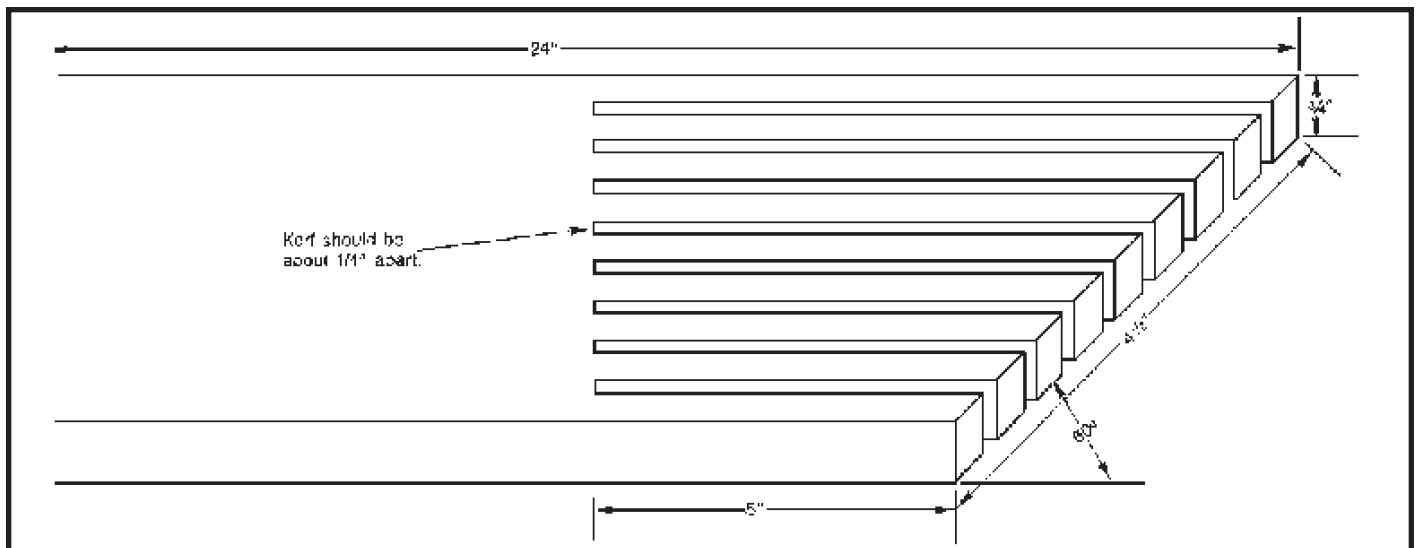
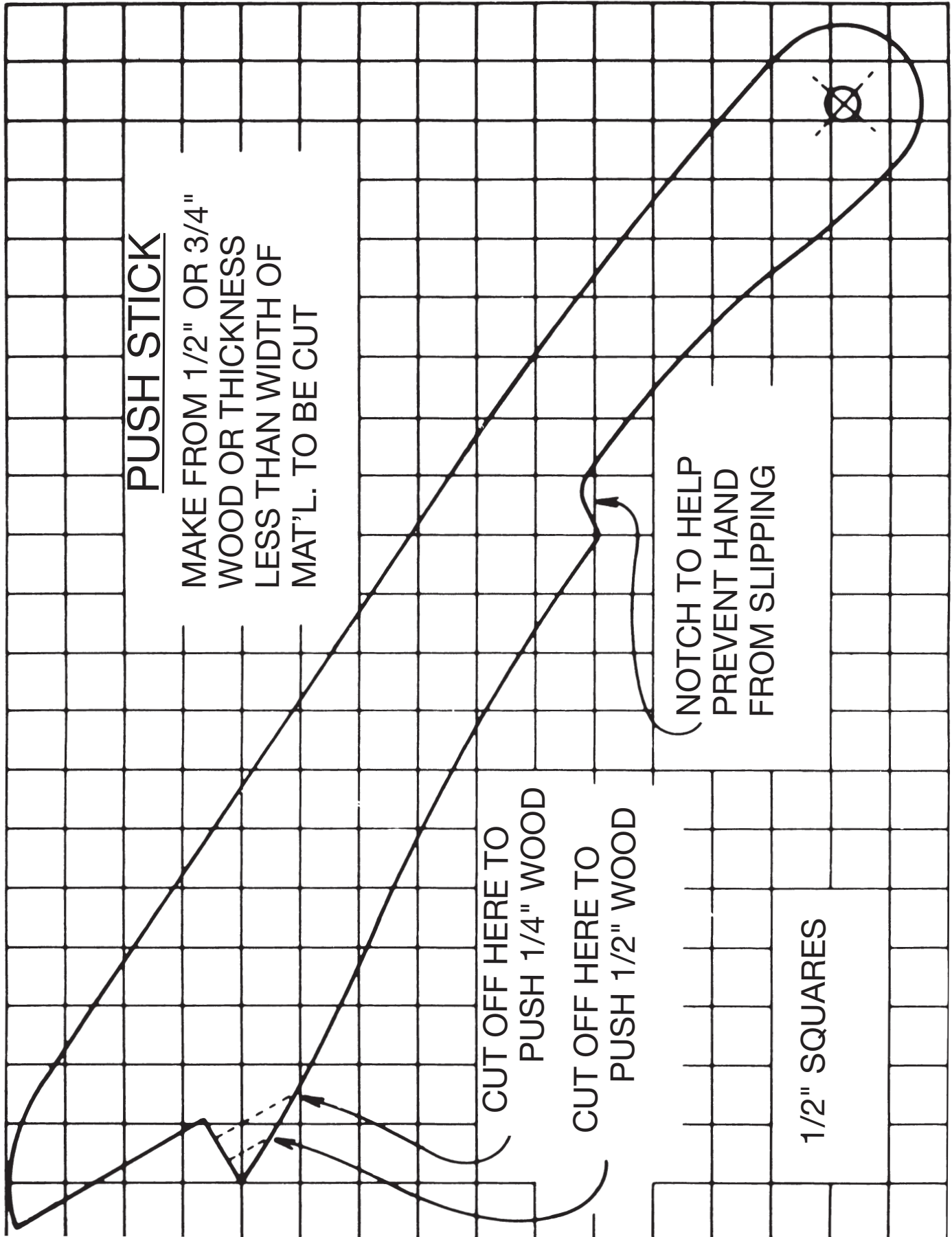


Fig. 80

CONSTRUCTING A PUSH STICK

When ripping work less than 4 inches wide, a push stick should be used to complete the feed and could easily be made from scrap material by following the pattern shown.



A complete line of accessories is available from your Delta Supplier, Porter-Cable • Delta Factory Service Centers, and Delta Authorized Service Stations. Please visit our Web Site www.deltamachinery.com for a catalog or for the name of your nearest supplier.

⚠ WARNING Since accessories other than those offered by Delta have not been tested with this product, use of such accessories could be hazardous. For safest operation, only Delta recommended accessories should be used with this product.

⚠ WARNING A RIP FENCE ASSEMBLY IS NOT PACKAGED WITH THE PRODUCT. YOU MUST INSTALL AND USE A RIP FENCE SYSTEM FOR RIPPING OPERATIONS.

THE FOLLOWING RIP FENCES ARE AVAILABLE FOR USE WITH YOUR UNISAW

DELTA UNIFENCE 30" CAPACITY

DELTA UNIFENCE 50" CAPACITY

DELTA UNIFENCE 96" CAPACITY

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